

APS / Rates - Permanent
E-01345A-08-0172

9/10/2009
Evidentiary Hearing Volume VII



0000102632

1 BEFORE THE ARIZONA CORPORATION COMMISSION

2

3 IN THE MATTER OF THE)
APPLICATION OF ARIZONA) DOCKET NO.
4 PUBLIC SERVICE COMPANY FOR A) E-01345A-08-0172
HEARING TO DETERMINE THE)
5 FAIR VALUE OF THE UTILITY) PERMANENT
PROPERTY OF THE COMPANY FOR)
6 RATEMAKING PURPOSES, TO FIX A)
JUST AND REASONABLE RATE OF)
7 RETURN THEREON, TO APPROVE)
RATE SCHEDULES DESIGNED TO)
8 DEVELOP SUCH RETURN.) EVIDENTIARY
) HEARING

9

10

11 At: Phoenix, Arizona
12 Date: September 10, 2009
13 Filed: September 11, 2009

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16 VOLUME VII
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1 BE IT REMEMBERED that the above-entitled and
2 numbered matter came on regularly to be heard before the
3 Arizona Corporation Commission, in Hearing Room 1 of said
4 Commission, 1200 West Washington Street, Phoenix, Arizona,
5 commencing at 9:10 a.m., on the 10th of September, 2009.

6

7 BEFORE: KRISTIN K. MAYES, Chairman

8 LYN A. FARMER, Chief Administrative Law Judge

9

10

11 Note: No roll call taken. The following is a list
12 of the parties of record.

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1 CALJ FARMER: Let's go ahead and go back on the
2 record. Good morning, and welcome back to the Commission
3 for the APS rate case.

4 Before we begin with the next witness, I have a
5 couple of procedural matters. I have looked at the
6 calendar, and there were a few days next week freed up,
7 and so it's possible that we could conduct a hearing on,
8 in addition to the 11th and the 14th, on the 16th and
9 17th. But this morning I woke up remembering that
10 Mr. Crockett had said he was unavailable for the 15th and
11 16th. Is that still correct, Mr. Crockett?

12 MR. CROCKETT: That is still correct, Your Honor.
13 I will be out of state and unable to attend those two
14 dates. And I would appreciate accomodation, because I
15 have sat through this entire proceeding and all of the
16 negotiations, and I do have clients who have a significant
17 interest in what occurs in this proceeding. So if at all
18 possible to accommodate me on those two dates, I would
19 greatly appreciate it.

20 CALJ FARMER: Well, the 15th we couldn't for
21 another reason, but we could at least add the 17th, which
22 is next Thursday, to the schedule.

23 Does anybody have any problem with that?

24 (No response.)

25 CALJ FARMER: Okay. Why don't we go ahead and

1 then schedule the 17th, in addition to the 11th and the
2 14th, next week.

3 Are there any other procedural matters?

4 I see Staff.

5 MR. HAINS: Yes, Your Honor. Charles Hains for
6 Staff. While we're on scheduling issues, we had
7 tentatively set Mr. Abinah to testify either on the 14th
8 or the 18th. And it is the information that I have
9 received is he's actually not available on the 18th, so if
10 we could firm up the 14th as the day he would testify.

11 CALJ FARMER: Okay. So you want to have -- okay.
12 The witness again was?

13 MR. HAINS: Mr. Abinah.

14 CALJ FARMER: And you want him to be on the --

15 MR. HAINS: On the 14th. I'm also told he's not
16 available on the 17th either.

17 CALJ FARMER: All right. It must be me this
18 morning. Again, the date that you would like for him to
19 testify is the 14th?

20 MR. HAINS: Yes, Your Honor, that's correct.

21 CALJ FARMER: We currently have scheduled for the
22 14th Ms. Pecora's witness, Mr. Miller.

23 Is everything still okay with that, Ms. Pecora?

24 MS. WYLLIE-PECORA: Yes, Your Honor.

25 CALJ FARMER: And Staff witness Lewis,

1 telephonic, and the RUCO witness Johnson; is that correct?

2 MR. POZEFSKY: Yes, Your Honor. That is
3 scheduled for Monday the 14th. And the only thing I
4 wanted to add is I did want to firm that up because I have
5 Mr. Johnson, he hasn't made the reservation, but he's
6 ready to. So I want to make sure that we're still on
7 schedule with that.

8 CALJ FARMER: Yeah, I had him scheduled for the
9 14th for a date certain.

10 Mr. Hains, all I can say is that we can try. I
11 don't know that I can, you know, promise the 14th. What
12 other days is he available if not the 14th?

13 MS. WAGNER: Your Honor, he's leaving town on the
14 17th, and it's my understanding he won't be back until the
15 29th of September.

16 CALJ FARMER: Okay. Well, I can't -- we've got
17 an out-of-town witness, I think, that is taking priority
18 in this case, and the other out-of-town witness -- is
19 Mr. Miller out of town?

20 I don't expect a lot of -- well, potentially
21 maybe not a lot of cross-examination for that witness,
22 but --

23 MR. ROBERTSON: Your Honor, for the 14th, with
24 Mr. Abinah being unknown at this point, I have
25 Ms. Pecora's witness, RUCO witness Ben Johnson, and I

1 believe you mentioned a third and I missed that.

2 CALJ FARMER: Staff witness Lewis.

3 MR. ROBERTSON: Lewis, thank you.

4 Your Honor, one further just confirmation. My
5 recollection is that we had scheduled for the 18th
6 Mr. Hatfield, the APS witness; is that correct?

7 CALJ FARMER: Correct.

8 MR. ROBERTSON: Thank you.

9 MS. GRABEL: Your Honor, now that the 17th has
10 become open, we might be able to become more flexible with
11 Mr. Hatfield and move him up, if that works with
12 scheduling.

13 CALJ FARMER: And we can see after -- how these
14 two days go.

15 MS. GRABEL: Sure.

16 CALJ FARMER: That's helpful in case we could
17 finish him earlier. If we don't need Friday, that would
18 be great, but I don't know.

19 So Staff, I don't know particularly what I can
20 say to you other than we will try to, but depending on the
21 number of questions that the Commissioners may have for
22 the other witnesses, I just -- unless, you know, the other
23 option is possibly tomorrow. So you might just put -- we
24 might just put Mr. Abinah on maybe tomorrow afternoon.
25 You might alert him to the fact, depending on how it goes

1 with your witness Mr. Smith.

2 MS. WAGNER: Thank you.

3 CALJ FARMER: Does anybody object to that, if we
4 go to that Staff witness tomorrow if we get through with
5 Mr. Smith? APS, do you have any problem with that?

6 MR. MUMAW: No.

7 CALJ FARMER: All right. So maybe tomorrow or
8 Monday.

9 Any other procedural issues before we begin with
10 the next witness?

11 (No response.)

12 CALJ FARMER: All right. I have the next witness
13 to start this morning is Staff's witness Mr. Radigan.

14 MR. HAINS: Yes, thank you, Your Honor.

15

16 FRANK W. RADIGAN,
17 called as a witness on behalf of ACC Staff, having been
18 first duly sworn by the Certified Reporter to speak the
19 truth and nothing but the truth, was examined and
20 testified as follows:

21

22 DIRECT EXAMINATION

23

24 Q. (BY MR. HAINS) Good morning, Mr. Radigan. How
25 are you doing?

1 A. Very good, thank you.

2 Q. Great. Could I please have you give your full
3 name and place of business for the record.

4 A. My name is Frank Radigan. My business is Hudson
5 River Energy Group. It's a consulting company. My
6 business address is 237 Schoolhouse Road, Albany, New
7 York.

8 Q. And on whose behalf are you testifying today?

9 A. Staff.

10 Q. And could you please briefly describe your
11 experience.

12 A. Yes. I started my career as the junior engineer
13 at the New York State Public Service Commission. I worked
14 there 15 years, and left about 10 years ago -- no, 12
15 years ago now, to enter consulting. And I have owned my
16 own consulting firm for 10 years, specializing in utility
17 rates, resource planning, for electric, gas, steam, and
18 water utilities.

19 Q. And in the course of your engagement with Staff
20 for this application, were you assigned to evaluate the
21 present application?

22 A. Yes, I was. I was assigned to look at revenue
23 allocation and rate design.

24 Q. And did you prepare prefiled testimony in this
25 application?

1 A. I did.

2 Q. And do you have up there what has been marked for
3 purposes of identification as Exhibits S-5, 8, and 9?

4 A. I do.

5 Q. And can you identify those documents, please.

6 A. S-5 is my direct testimony on December 19. That
7 addressed the demand-side management adjustment clause and
8 the impact fee and system facility charge.

9 S-8 was filed on January 9. That addressed the
10 issues of revenue allocation and rate design.

11 And S-9, filed on January 16, contained the
12 actual rates consistent with my proposed rate design.

13 Q. I see. Thank you.

14 And you also prepared testimony in relation to
15 the settlement; is that correct?

16 A. I do.

17 Q. Do you have up there with you S-13?

18 A. I do.

19 Q. Can you identify that, please.

20 A. Yes. That's my testimony in support of the
21 proposed settlement of July 1, 2009. And that addressed
22 several issues, revenue allocation, rate design, and then
23 some specific provisions of the settlement agreement
24 regarding interruptible rates, demand response, and other
25 rate schedules.

1 Q. And were all of these exhibits prepared by you or
2 under your direction?

3 A. Yes, they were.

4 Q. If I were to ask you questions that are posed
5 inside of the prefiled testimony, would your responses be
6 the same here today?

7 A. Yes, they would.

8 Q. And do you adopt these exhibits as your sworn
9 testimony here today?

10 A. I do.

11 Q. Do you have any changes, corrections, or
12 modifications to make to Exhibits S-5, 8, 9, or 13?

13 A. I do have one change. On Page 1 of Exhibit S-13,
14 Line 23, there's a typographical error that says Paragraph
15 16.1, and that should be Paragraph 17.1. And I have
16 corrected that for the court reporter.

17 Q. Okay. And with that, does that -- do you have
18 any other corrections to make aside from that?

19 A. I do not.

20 Q. Okay. And please briefly, at this time, could
21 you give a short summary of the testimony that you have
22 provided in support of the settlement.

23 A. Yes. As I said, there's several distinct issues.
24 The first is the revenue allocation. I support the equal
25 allocation of the revenue increase to the rate classes,

1 holding the low income class harmless.

2 And then there is a sub-issue within the E-32
3 rate class -- this was also an issue in my direct
4 testimony -- that the rate design for this class, it's
5 been modified, or they're trying to clean it up over
6 several rate cases, and it was more important to keep the
7 rate differentials between the rate class than the percent
8 increase. Giving an equal percentage increase to these
9 customers would have harmed the rate design goals that was
10 trying to be -- trying to be accomplished.

11 With respect to rate design, there was three
12 distinct issues. One was to keep the transmission rate
13 discount for the E-35 class. The second was to reject
14 third-party transmission charges for Classes 34 and 35.

15 And the third was to increase the customer charge
16 for certain service classes to better reflect cost of
17 service. Those were issues that some parties had in the
18 settlement. They're limited. They're not impacting many
19 customers, but they were important to some customers and
20 they should be supported.

21 With respect to interruptible rates, Section
22 19 -- yeah, 19. I've got my Roman numerals -- Section 19
23 of the settlement agreement, the company agrees that
24 within 180 days it's going to file an interruptible rate
25 that goes along with some of the demand response issues

1 that are in Section 20 where they're going to introduce
2 critical peak pricing for both the commercial and
3 residential customers.

4 And one other issue -- oh, the introduction to
5 the critical peak price -- the superpeak for the
6 residential class. That's another innovative rate design
7 issue that's being introduced here.

8 And that summarizes my testimony.

9 MR. HAINS: And with that, Your Honor, I would
10 move for the admission of Exhibits S-5, 8, 9, and 13.

11 CALJ FARMER: Okay. All of those exhibits were
12 prefiled and no objections have been received, so Staff
13 Exhibits 5, 8, 9, and 13 are admitted.

14 (Exhibits S-5, S-8, S-9, and S-13 were admitted
15 into evidence.)

16 MR. HAINS: Thank you. Your Honor, with that,
17 Mr. Radigan is available for questions.

18 CALJ FARMER: Thank you.

19 Do any of the parties in support of the
20 settlement agreement have questions for this witness?

21 MR. CROCKETT: No questions.

22 MR. MUMAW: Just a couple, Your Honor.

23 CALJ FARMER: APS.

24

25

1 CROSS-EXAMINATION

2

3 Q. (BY MR. MUMAW) Good morning, Mr. Radigan.

4 A. Good morning.

5 Q. Let's turn back again to Section 17 of the
6 settlement, Page 35.

7 A. Yes.

8 Q. And again, I think you indicated in your summary
9 that the distinction between the various subgroups within
10 Rate Schedule E-32 was, as set forth there in 17.2, to
11 further, I think you indicated, the rate design goals with
12 regard to that particular rate schedule; is that correct?

13 A. That's correct.

14 Q. And specifically, this rate design goal is to
15 attempt to move customers, at least within that rate
16 schedule, closer to their cost of service?

17 A. Closer to the cost of service, and also trying to
18 maintain some rate differentials between the customers.

19 Q. And I believe there was testimony earlier in this
20 proceeding that indicated that this differentiation as set
21 forth in 17.2 was consistent with your original
22 recommendation. Would you agree with that?

23 A. Yes.

24 Q. And there was also testimony that it was
25 consistent with the company's cost of service study. Do

1 you agree with that?

2 A. Yes, I do.

3 Q. One additional issue, and I'm going to turn your
4 attention to Section 21 of the settlement on Page 37. Do
5 you have it?

6 A. No, actually, I don't. The settlement?

7 Q. Yes. Section 21 on Page 37.

8 MS. WAGNER: Your Honor, I have one that I can
9 loan the witness.

10 THE WITNESS: I think I have it from my
11 testimony. Yes, I have it.

12 No, no, I don't need it. Again, I'm having
13 problems with Roman numerals.

14 Q. (BY MR. MUMAW) I think that's why they stopped
15 using them.

16 Specifically, looking at Paragraph 21.1 --

17 A. Uh-huh.

18 Q. -- I think there's been some questions as to,
19 first of all, why unfreeze the Schedule E-20 for houses of
20 worship, so let's do that one.

21 Why was it determined by the parties that that
22 schedule which had been previously frozen by this
23 Commission should be reopened on a temporary basis?

24 A. Oh, actually, I don't know if I was at that. It
25 was some of the parties in the proceeding were asking for

1 that, and it was an accommodation to them.

2 Q. And did your analysis indicate whether or not
3 that schedule is currently significantly below its cost of
4 service?

5 A. Let me see if I have that in my original
6 testimony. Excuse me for a moment.

7 I can't answer that right now with the material
8 that I have on hand.

9 MR. MUMAW: Thank you, Mr. Radigan. I have no
10 further questions.

11 CALJ FARMER: Anyone else?

12 Ms. Pecora, did you have questions for this
13 witness?

14 MS. WYLLIE-PECORA: I do not, Your Honor.

15 CALJ FARMER: Thank you. I have a few questions
16 for you from the Commissioners.

17

18 EXAMINATION

19

20 Q. (BY CALJ FARMER) This is a question from
21 Commissioner Newman.

22 The AECC stated that requiring higher load and
23 higher voltage customers to pay a greater percentage of
24 the rate increase is inequitable. However, since
25 commercial and industrial users pay a lower rate per kWh,

1 why not encourage conservation by requiring higher voltage
2 and load customers to pay more?

3 A. Well, conceptually, you do not want to charge
4 customers more than the cost of service. So it would be
5 the wrong signal to the customer that I'm going to
6 overcharge you just so that you conserve. There's many
7 other ways to achieve conservation, and this utility has a
8 lot of different rate design options geared towards that.

9 Also, there's provisions in the settlement where
10 customers, especially large customers, could enroll in the
11 demand response programs, and that would be to encourage
12 conservation as well.

13 As a matter of fact, from the original proposal
14 to the settlement, the company has expanded the demand
15 response program to include more customers in that pilot
16 program. There's also the interruptible rate program that
17 they're going to file as a part of the settlement that
18 customers can become interrupted, and then thereby
19 avoiding peak pricing, and that is a form of energy
20 conservation.

21 So those other provisions of the settlement give
22 adequate energy conservation signals to the customer.
23 There's also lots of time-of-use rates, which is an energy
24 conservation method. So there's -- just to charge them
25 more and thereby overcharging them would be the wrong

1 signal.

2 MR. ROBERTSON: Your Honor, did you indicate on
3 behalf of which Commissioner you were posing that
4 question? If you did, I didn't hear it, and I apologize.

5 CALJ FARMER: That was a question from
6 Commissioner Newman.

7 MR. ROBERTSON: Newman. Thank you.

8 Q. (BY CALJ FARMER) Do you have -- okay. Now, this
9 is a question from Commissioner Pierce.

10 Do you have Paragraph 17.1 with you?

11 A. Well, I have my testimony, which --

12 Q. Okay. And 17.1 says: Each retail rate schedule
13 will receive an equal percentage total base rate increase,
14 inclusive of the interim rate increase, and inclusive of
15 fuel and purchased power costs that are incorporated into
16 base rates.

17 A. Yes.

18 Q. Is this paragraph consistent with the revenue
19 spread treatment that was adopted in the company's interim
20 rate increase?

21 A. I don't know the answer to that. I didn't work
22 on the interim rate increase case.

23 CALJ FARMER: Is there someone from Staff who
24 could address that issue, another witness?

25 MS. WAGNER: Your Honor, we will find someone.

1 CALJ FARMER: Okay, thank you.

2 Q. (BY CALJ FARMER) Okay. Moving to -- this is
3 still Commissioner Pierce -- paragraph 17.2.

4 If Arizona had a state agency to represent the
5 interests of small business owners similar to the way RUCO
6 represents residential ratepayers, would you expect that
7 agency would support Paragraph 17.2?

8 A. I would say yes, because I represent the small
9 commercial customers here as the Staff witness. And this
10 provision of trying to fix the rate design for E-32 has
11 been going on for three cases now, or three APS rate
12 cases, that they've been trying to corral -- if I can use
13 that word -- the rate differentials between these types of
14 customers.

15 A lot of utilities have separate service classes
16 for small general, large general, so on and so forth.
17 Here, to roll in the E-32 class, the cost of service --
18 the class overall is getting the same rate increase as all
19 other classes, but within the class they're just trying to
20 make some refinements to the rate design to keep those
21 rate differentials.

22 That, to me, is no different than the provisions
23 of Paragraph 18 where there's three distinct rate design
24 issues being addressed in the settlement. This is just
25 one provision of the settlement where they're trying to

1 just align the rates between these two -- these subclasses
2 within the class.

3 So one, they're getting an overall increase equal
4 to all other classes, but within that some classes are
5 getting -- and I recall it a very limited rate change of
6 the 2.5 percent. I think the other one is 1.8 percent.
7 They're just getting a minor differential between the
8 overall increase being given to other classes.

9 To me, this is the third rate case that they're
10 trying to do this, and it's a very limited rate change,
11 and that makes it an acceptable provision. This was an
12 issue I addressed in my direct testimony, it carried
13 forward to the settlement that the utility wanted to do
14 this, and all parties agreed to have it done.

15 Q. Okay. So you believe that APS's cost of service
16 study indicates that this treatment is warranted?

17 A. Yes.

18 Q. Okay. Did APS -- this is continuing with
19 Commissioner Pierce's questions.

20 Did APS advocate for an increase to E-32, 401 and
21 greater kW, that is 2 percent higher than average for
22 E-32, and an increase to E-32, zero to 20 kW, that is
23 2.8 percent below average for E-32 in its base case? And
24 if not, do you know why?

25 A. They did advocate for different rate increases

1 between classes. I would have to go back and -- I don't
2 know if it was those exact percentages, but they're
3 approximate.

4 Q. Okay.

5 A. As I said, this was something that the company
6 had proposed. I reviewed in my initial testimony to keep
7 this, to maintain the rate differential, and therefore
8 you're going to have different percentage increases within
9 the subclasses.

10 Q. Is such treatment consistent with Paragraph 17.1,
11 in which the sentiment seems to be that everyone gets an
12 equal percentage total base rate increase, irrespective of
13 the results of APS's cost of service study?

14 A. Yes. I would say yes, for the reasons that I
15 stated before. First, the class overall is getting an
16 equal percentage increase. So then within the class,
17 there's just some rate design changes that are being
18 applied so that some classes -- some of the subclasses are
19 getting what I would consider a very minor differential
20 between the overall increase.

21 This, to me, is not different than holding
22 harmless the low income customers. People could argue the
23 other way, that everyone should get the same percentage
24 increase, including the low income customers. This is
25 just one of the goals that are being considered in the

1 settlement. People all agreed that the low income
2 customers should get no increase; all of the other
3 customers are going to absorb that. That's just part of
4 the settlement process.

5 Q. Okay. And this is going back to Paragraph 21.1
6 about house of worship. And I'm not sure if they're
7 duplicative of APS's questions. But these are, again,
8 questions from Commissioner Pierce, so I'm going to go
9 ahead and ask those to you.

10 Do you know how many customers would like to
11 participate in that house of worship tariff that can't
12 because it's frozen?

13 A. No, but there was some interest from some parties
14 in the settlement negotiations to do that.

15 Q. Do you know what tariffs those customers are
16 currently on?

17 A. No.

18 Q. Okay. Do you know the bill differential for
19 those customers under the house of worship versus the
20 tariff they are already on?

21 A. Well, that's in the tariffs. It's -- it would be
22 different for each service class. Let me just see.

23 Q. Do you know how the -- what the bill differential
24 might be if those customers were under a time-of-use
25 tariff versus the house of worship tariff?

1 A. Yeah. I have all of that on my computer. The
2 rate design, there's a lot of numbers. Well, let me just
3 do it the commonsensical way.

4 Those customers perceive that they're going to
5 get a decrease in rates if the E-20 is continued to be
6 offered to them, and that's why they were advocating for
7 that during the settlement negotiations. I can't say
8 definitively how much that would save them.

9 Q. Okay. And I'm going to ask these questions to
10 the APS witness. They may be able to give a little bit
11 more information about that.

12 Let me see. That concludes the questions from
13 the Commissioners. I do have a few questions for you
14 myself, though.

15 I understand that the settlement agreement holds
16 the low income customers harmless in this case?

17 A. Yes.

18 Q. And can you talk about -- and I understand the
19 reason for that, but do you think at some point that there
20 needs to be some increase to even low income customers?
21 And I'm not talking specifically about this case, but just
22 in general.

23 A. Yes. At some point the dollar value of holding
24 their rates harmless from rate increases is going to add
25 up. And at some point in time someone is going to say

1 that number is so large that we should reconsider the
2 policy of doing this on a continuous basis, and at that
3 time it may be reasonable to give them an increase.

4 You know, say after five years you would have to
5 consider that, you know, they should be able to pay their
6 fair share of increased costs of utility service. It's
7 not there yet. You know, people are considering that, you
8 know, in these economic times, let's just hold them
9 harmless and we'll shoulder the burden for them.

10 Q. Okay. In your direct testimony that you filed in
11 January, you disagreed with the company's proposed changes
12 to the environmental improvement surcharge. Do you
13 remember that?

14 A. Yes.

15 Q. I think it was on Page 31 you start talking about
16 it.

17 A. Yes, I recall that.

18 Q. How did the settlement agreement come out on that
19 issue?

20 A. Oh, I believe it left the provision alone as it
21 stands today. Yeah, by omission, there is no change to
22 it.

23 Q. And likewise, on Page 34, the company had
24 proposed changes to the transmission cost adjustment
25 mechanism?

1 A. Yes.

2 Q. And how did that come out in the settlement
3 agreement?

4 A. Again, by omission it remained the same.

5 Q. Recently, the Commission addressed changes in
6 the -- I think the amount of APS's TCA. And my
7 understanding of that was that the FERC method allocates
8 cost based upon primarily demand. Are you familiar with
9 that?

10 A. Yes, I am.

11 Q. And one of the questions or one of the issues
12 that was discussed by the Commissioners was how -- I
13 think, apparently, it looked like the residential
14 ratepayers were bearing more of the cost, and it was
15 explained that that was because the residential had a
16 higher demand than commercials.

17 This is a very simplified version of that
18 discussion. Are you familiar with that?

19 A. I'm familiar with the cost of service and the
20 issue, not exactly what the Commission discussed. But I
21 think what it addresses is that the residential customers
22 have a higher demand responsibility for that particular
23 cost item.

24 And the reason for that is that -- and I have
25 some graphs in my original testimony back in January. The

1 residential class peaks at the same time that the utility
2 peaks; whereas, say, the time-of-use classes where the
3 customers have been given an incentive to move away from
4 peak, their responsibility has -- they've shifted their
5 usage patterns so their responsibility of the peak demand
6 is less, and the commercial customers have done the same
7 thing.

8 So when you look at all of the different service
9 classes, you can actually -- it's called an allocation
10 factor. You develop what percentage each service class
11 has responsibility for demand-related costs that are
12 related to peak usage. And so I don't have the allocation
13 factor in front of me, but the fact that the residential
14 customers would bear a larger proportion of the burden is
15 not surprising.

16 Q. I think that the issue was because how would
17 residential -- I mean, commercial customers are maybe more
18 sophisticated and have more demand response tariffs than
19 residential customers. And I think some of the questions
20 the Commissioners had were how would residential
21 ratepayers be able to know when to reduce their demand so
22 that they could not contribute such a large portion to
23 demand, thereby increase their proportion of the increases
24 under the TCA?

25 A. Yes, that's a very good question, and I actually

1 tried to address that in my original testimony of
2 January 9. In there I put in some load shapes of when the
3 company peaks, how it peaks, and compared the different
4 service classes to that. The residential time-of-use
5 customers have shifted away from the peak.

6 So here the company gave them an option to say,
7 you can save money if you move away from using power
8 during peak times. And by examining what the customers
9 did via the load shape, you can see that they've responded
10 to that very well. Whereas, the customers on the
11 non-time-of-use rates are exactly coincident peaking at
12 the same time the utility peaks.

13 So one provision of the settlement is that the
14 company is going to do an education program of their
15 time-of-use rates to try and educate customers of that
16 exact point. Please do not use, you know, power at this
17 6:00 to 8:00 p.m. time window, because that's when it's
18 costing us the most and we're going to have to build
19 another power plant you're going to have to pay for.

20 So the time-of-use rates for this company have
21 been proven to be very, very effective. And the provision
22 in the settlement is that they're going to increase the
23 education program so that customers learn that. I thought
24 that was a very good aspect of the settlement.

25 Q. Okay. Thank you. In your direct testimony in

1 support of the settlement agreement, you talk a little bit
2 about the new time-of-use rate that the company is
3 obligated to file for schools.

4 A. Yes.

5 Q. Can you explain how you could see that working?
6 Are you talking about potentially time-of-use during the
7 day hours, or are you talking about seasonal changes, or
8 was there that much discussion about what that new rate
9 would look like?

10 A. It hasn't been refined to that point. It was
11 that there was a school superintendent that asked that the
12 schools be allowed to have time-of-use rates as -- one, as
13 a budget control for them, but also as educational to
14 them, I believe it was.

15 CALJ FARMER: Okay. I think those are all of the
16 questions that I have. Do any parties have additional
17 questions for the witness?

18 MR. MUMAW: Just one, Your Honor.

19

20 FURTHER CROSS-EXAMINATION

21

22 Q. (BY MR. MUMAW) Mr. Radigan, back to our familiar
23 17.1 for a second.

24 A. Yes.

25 Q. Whether or not the revenue spread espoused by

1 17.1 was or wasn't consistent with how the Commission did
2 the interim rate spread, is 17.1 consistent with your
3 original Staff recommendation in this case?

4 A. Yes, it is.

5 MR. MUMAW: I have nothing further.

6 CALJ FARMER: Anything further for the witness?

7 MR. HAINS: No, I have no more. Thank you, Your
8 Honor.

9 CALJ FARMER: Thank you, sir, for your testimony
10 today.

11 Why don't we take about a five-minute break here
12 and let the next witness get prepared. Make that 10
13 minutes.

14 (A recess was taken from 9:54 a.m. to 10:10 a.m.)

15 CALJ FARMER: Let's go ahead and get back on the
16 record. Is APS ready to call your next witness?

17 MS. GRABEL: We are, Your Honor. Thank you. We
18 call Barbara Lockwood to the stand.

19

20 BARBARA DAVIS-LOCKWOOD,
21 called as a witness on behalf of the Applicant, having
22 been first duly sworn by the Certified Reporter to speak
23 the truth and nothing but the truth, was examined and
24 testified as follows:

25

1 DIRECT EXAMINATION

2

3 Q. (BY MS. GRABEL) Good morning, Ms. Lockwood.

4 A. Good morning.

5 Q. Will you please state your full name and business
6 address for the record.

7 A. My name is Barbara Davis-Lockwood, and my
8 business address is 400 North 5th Street, Phoenix,
9 Arizona.

10 CALJ FARMER: Would you pull that microphone a
11 little closer to you? You want to make sure the green
12 light is still on, too.

13 THE WITNESS: Yes.

14 CALJ FARMER: Thank you.

15 Q. (BY MS. GRABEL) By whom are you employed and in
16 what capacity?

17 A. I'm employed by Arizona Public Service Company as
18 director of renewable energy.

19 Q. And in front of you, Ms. Lockwood, you should see
20 a document that has been previously marked as
21 Exhibit APS-24?

22 A. Yes.

23 Q. Will you please identify this document.

24 A. That is my testimony in support of the settlement
25 agreement.

1 Q. Was this testimony prepared by you or under your
2 direction and control?

3 A. Yes, it was.

4 Q. Do you have any corrections or updates to APS
5 Exhibit 24?

6 A. No, I do not.

7 Q. If I were to ask you the questions contained in
8 APS Exhibit 24, would your answers today be the same as
9 those contained therein?

10 A. Yes, they would be the same.

11 Q. Did you submit any other pieces of prefiled
12 testimony in the settlement proceeding?

13 A. No, I did not.

14 MS. GRABEL: At this time I would like to move
15 for the admission of Exhibit 24, Your Honor.

16 CALJ FARMER: APS Exhibit 24 was previously filed
17 and no objections have been received, so it is admitted.

18 (Exhibit APS-24 was admitted into evidence.)

19 Q. (BY MS. GRABEL) Ms. Lockwood, would you care to
20 offer a summary of your testimony?

21 A. Yes, I would. It's a short summary.

22 As part of the settlement agreement, APS is
23 making significant renewable energy commitments. We are
24 committing to what is essentially doubling the Renewable
25 Energy Standard by the year 2015, as well as committing to

1 specific projects with specific results.

2 We're committing to pursuing an in-state wind
3 project, we're committing to pursuing a utility-scale
4 photovoltaic project, and we're committing to introducing
5 two significant new distributed generation projects,
6 including one for schools and one for government
7 institutions. We believe these commitments are
8 significant for APS, for the renewable energy industry,
9 for the state, as well as for our customers.

10 Q. As you know, Chairman Mayes addressed a series of
11 questions to the settling parties in a letter to the
12 docket, dated August 5, 2009. Mr. Guldner during his
13 testimony addressed many of those questions as they
14 related to the company's renewable energy commitment, but
15 suggested that you would be the appropriate party to
16 respond to the Chair's suggestion on Page 5 that APS
17 design and implement a feed-in tariff.

18 Before doing so, would you please describe for us
19 what a feed-in tariff is and what it is intended to
20 accomplish?

21 A. Sure. A feed-in tariff is an incentive structure
22 that is designed to encourage the development of renewable
23 energy. Typically, it requires --

24 CALJ FARMER: Let me make sure the microphone is
25 on. You just have to speak right into it.

1 THE WITNESS: Is that better?

2 CALJ FARMER: A little bit.

3 THE WITNESS: Okay. A feed-in tariff is an
4 incentive structure that's designed to encourage the
5 development of renewable energy. Typically, it requires a
6 utility to purchase a certain amount of renewable energy
7 at an above-market rate usually established by a
8 government. It's a policy that's very popular in Europe
9 and other parts of the world and is gaining some interest
10 and attention here in the United States.

11 Q. (BY MS. GRABEL) What is APS's position on
12 whether a feed-in tariff should be implemented as a part
13 of this settlement?

14 A. We do not believe it should be implemented as
15 part of this settlement, but let me explain that a little
16 bit further. First and foremost, APS is not opposed to a
17 carefully designed and targeted pilot program for a
18 feed-in tariff. We have a similar program today that has
19 been very successful, and that's our production-based
20 incentive program. It works very similarly to a feed-in
21 tariff where we pay what is essentially a fixed price to
22 our customers to install and operate renewable generation
23 sources.

24 But we do believe that you achieve better
25 economics and a lower cost for that renewable energy

1 through a competitive process such as an RFP. We would
2 suggest that this be addressed in the implementation plan
3 process, the RES implementation plan process. And we
4 agree with Dr. Berry that it would require some
5 significant consideration and analysis, and would suggest
6 that it be considered for the plan, the implementation
7 plan that is to be filed July 1, 2010.

8 Q. During Mr. Guldner's testimony during this
9 hearing, Chairman Mayes asked him several questions that
10 Mr. Guldner believed would be best addressed by you, and I
11 would like to repeat those questions for you now.

12 The first is Section 15.2 of the settlement
13 agreement, which requires APS to issue a new request for
14 proposals for in-state wind generation and to file a
15 request for Commission approval that one of those projects
16 move forward.

17 Is the company willing to accelerate the timing
18 of that provision so that the request for approval can be
19 decided by the members of the current Commission?

20 A. Yes. APS is willing to accelerate a portion of
21 the schedule for this project. We would be willing to
22 commit to issuing an RFP within 30 days of approval of the
23 settlement, as opposed to the 90 days which is currently
24 in the agreement. And we believe that would allow the
25 current Commission time to review and vote on the project

1 before the end of next year.

2 Q. And similarly, Section 15.3 requires the company
3 to file a plan for implementing a utility-scale PV
4 generation project with a construction initiation date of
5 no later than 18 months from the date of filing.

6 Is the company willing to accelerate the timing
7 of that provision so that can also be considered by the
8 currently sitting Commission?

9 A. That project or the provision is a little bit
10 different than the wind provision that was written a
11 little differently. And we believe the way it's
12 structured today would allow the current Commission to
13 vote on moving forward with a photovoltaic project before
14 the end of next year. What it requires is that we file a
15 plan within 120 days of approval of the settlement.

16 And our intent would be to structure the plan
17 such that Commission approval would allow us to move
18 forward with the project. So we do believe that with the
19 way it's written today, the current Commission could vote
20 on moving forward with a photovoltaic project.

21 Q. How large in megawatts does APS envision that
22 project referred to in Section 15.3 to be?

23 A. So the specific project has yet to be defined,
24 but generally we believe that utility scale, as referred
25 to in Section 15.3, would be 20 megawatts or greater.

1 Q. Section 15.5 requires 50,000 megawatt hours of
2 annual energy generation or savings at schools. How much
3 of that is covered by stimulus funding and/or the
4 company's existing rebate program?

5 A. So based on our understanding of what the schools
6 intend to do with the ARRA funding that we're aware of, we
7 believe that would account for less than 10 percent or
8 5,000 megawatt hours of energy under this section.

9 Q. Do you have anything additional that you would
10 like to add to your testimony?

11 A. No, I do not.

12 MS. GRABEL: APS has no further questions, and
13 Ms. Lockwood is available for cross.

14 CALJ FARMER: Thank you. Do any of the parties
15 in support of the settlement agreement have questions for
16 this witness?

17 MR. CROCKETT: No questions.

18 CALJ FARMER: Mr. Robertson.

19 MR. ROBERTSON: Thank you, Your Honor. In
20 connection with my cross-examination, Your Honor, I have
21 previously, during this morning's recess, distributed a
22 copy of Exhibit WRA-1, which was sponsored and admitted as
23 a part of Mr. David Berry's testimony earlier in this
24 proceeding, and I had provided copies of that to Your
25 Honor and Chairman Mayes, and all of the parties.

1 And during the recess, I advised both
2 Ms. Lockwood and Ms. Grabel that I would be asking a few
3 questions in connection with this exhibit, as well as some
4 of my previous cross that I had prepared. Some of that
5 cross has been anticipated and covered, in part, by
6 Ms. Grabel's additional examination of Ms. Lockwood this
7 morning, so I'll endeavor to avoid duplication where I
8 can.

9

10 CROSS-EXAMINATION

11

12 Q. (BY MR. ROBERTSON) Good morning, Ms. Lockwood.
13 How are you?

14 A. I'm great.

15 Q. I would like initially to refer to Page 6, Line 7
16 through 15 of your prepared testimony in support of the
17 settlement agreement. In this portion of your prepared
18 direct testimony, you discuss APS's use of both RFP and
19 bilateral purchase approaches in connection with APS's
20 procurement of renewable energy.

21 Would you please describe the process by means of
22 which interested parties might learn of APS's decisions
23 which are the subject of such procedures and verify that
24 the applicable procedures were followed?

25 A. Mr. Robertson, would you repeat that question? I

1 just want to make sure that I'm answering the question
2 that you asked.

3 Q. Okay. I'm referring to your testimony on Page 6,
4 Line 7 through 15 in your prepared testimony.

5 A. Okay.

6 Q. And there you have described APS's use of both
7 RFP and bilateral purchase approaches in connection with
8 APS's procurement of renewable energy. And what I had
9 just asked you to do was please describe the process by
10 means of which interested parties might learn of APS's
11 decisions which are the subject of those two procedures
12 and verify that the applicable procedures were followed.

13 A. Okay. So all of our acquisitions follow those
14 procedures. That is a requirement of the rule and the
15 commitment by the company.

16 With respect to how parties might learn about our
17 intent with respect to those procedures, typically with a
18 competitive solicitation, we will advertise that through a
19 couple of different means, including press releases. So
20 parties would be informed through our website and through
21 additional communications that we are intending to solicit
22 for a project.

23 As we go through the process and finish up the
24 process, typically we're going to bring in a project to
25 the Commission for a variety of reasons. There could be a

1 variety of reasons we would bring in a project to the
2 Commission for their approval, and those are open
3 processes that any party can participate in.

4 That could be through a variety of different
5 proceedings. It could be an individual filing like we've
6 done for both of our concentrating solar power projects,
7 it could be through the RES implementation plan which we
8 file annually, or it could be through a future IRP or
9 resource plan filing.

10 Q. Let me ask you in that regard, you're familiar
11 with the REST regulations that have been adopted by the
12 Commission, are you not?

13 A. Yes, I am.

14 Q. Would a further way that interested parties might
15 obtain information of the nature that I've asked you about
16 be to look at the annual compliance report that APS would
17 file responsive to R14-2-1812.A -- I'm sorry -- B.6?

18 A. I'm not sure the specific reference, but
19 absolutely our compliance plan that we file -- compliance
20 report that we file every year would be another way that a
21 party could be made aware of our acquisitions, and those
22 are also certified. Our acquisitions are certified, and
23 that certification is included in our compliance report
24 every year.

25 Q. And just for completeness of the record,

1 R14-2-1812.B.6 provides that the compliance report shall
2 include the following information: A description of the
3 affected utility's procedures for choosing eligible
4 renewable energy resources, and a certification from an
5 independent auditor that those procedures are fair and
6 unbiased and have been appropriately applied.

7 And that conforms with your understanding and
8 your earlier response; is that correct?

9 A. Yes, it does.

10 Q. Okay. In that regard, and with respect to the
11 utility-scale photovoltaic solar project which is the
12 subject in paragraph 15.3 of the settlement agreement,
13 which approach is APS currently anticipating would be used
14 in connection with that project?

15 A. We anticipate that will be a competitive
16 solicitation.

17 Q. Let me now direct your attention to Page 6,
18 Lines 20 through 23 of your prepared direct testimony. In
19 this portion of your testimony, you allude to three
20 different means by which APS may seek approval of various
21 renewable projects contemplated by the settlement
22 agreement. And the three you refer to are a separate
23 application, or as part of the company's annual REST
24 implementation plan, or, finally, as a part of the
25 company's resource plan.

1 Let me ask you against that background which
2 approach -- strike that.

3 Let me ask you against that background, what
4 project characteristics or factors will influence APS's
5 decision as to the nature of the request for Commission
6 approval to be made by APS?

7 A. So there are several factors that would influence
8 how we would request approval and, essentially, if
9 approval is required. The size of the project or the size
10 of the commitment could be a factor. The percentage above
11 market that the project is. If it is an unusual situation
12 where we are looking at a specific technology which may be
13 a higher cost, that would be an influencing factor.

14 Available funding. If our current funding is
15 sufficient or not would also influence how we may go about
16 requesting for approval.

17 It's also a matter of timing with those three
18 options, and the necessary timing to move forward with a
19 project could require us to file a separate application
20 and ask for expedited approval. Our intent usually is to
21 minimize the number of filings we have to put before the
22 Commission. So we like to incorporate them, where
23 possible, into our regularly scheduled filings.

24 Q. At the risk of reading between the lines on your
25 last response, would characteristics about a project that

1 are new or have not been considered by the Commission on a
2 previous occasion lead the company to probably go in the
3 direction of a separate application as opposed to
4 including that project in your annual implementation plan
5 or your resource plan?

6 A. Potentially. It would depend on the individual
7 project and other factors. It could be a smaller but new
8 technology. We may include that in the implementation
9 plan. A very large, new technology may require separate
10 filing.

11 Q. Now, with regard to the utility-scale
12 photovoltaic project, which is the subject of paragraph
13 15.3, would it be correct to assume that that will be the
14 subject of a separate application as opposed to either the
15 REST implementation plan or your resource plan?

16 A. That was in relation to the photovoltaic project?

17 Q. That's correct.

18 A. Yes. The settlement actually requires that we
19 file a plan within 120 days. If we were able to, if time
20 allowed us to combine that with another proceeding, we
21 might choose to do so, but I would anticipate at this
22 point in time that would be a separate filing.

23 Q. Okay. And I may come back to that timing point
24 in a moment. In fact, looking at my list of questions,
25 I'm there right now.

1 With reference to the 120-day planned filing
2 deadline, which is prescribed in paragraph 15.3 of the
3 settlement agreement, how does that interface with or
4 relate to the forthcoming 2010 implementation plan filing
5 or the 2011 implementation plan filing?

6 A. At this point in time, we would anticipate that
7 it would be a separate filing. The 2010 implementation
8 plan filing, as you know, is already entered with the
9 Commission, and the 2011 filing is not due until July the
10 1st. So the 120 days will likely necessitate a separate
11 filing.

12 Q. Okay. Also, at Page 6, and I'm now at Lines 20
13 through 23 of your prepared testimony, you indicate that,
14 quote, later in this testimony, close quote, you will
15 discuss what would influence APS's choice of the form of
16 Commission approval to be sought with regard to the
17 renewables projects in question. Your testimony appearing
18 at Page 11, Lines 9.5 through 17.5 appears to be that,
19 quote, later in this testimony, close quote, discussion.

20 Is that, in fact, the case? And if you would
21 like to take a moment to look at those two different parts
22 of your prepared testimony before you respond, please do
23 so.

24 A. Yes, that is correct.

25 Q. Okay. If so, the description which appears at

1 Page 11, Lines 9.5 through 17.5, appears to be a broad and
2 general discussion. So would you please be more specific
3 in terms of when APS will seek project-specific approvals
4 from the Commission and the nature of the approvals which
5 may be requested?

6 A. Mr. Robertson, it is general in part because it
7 is project specific. And we can look at or we could
8 examine filings that we've made in the past and what drove
9 us to that individual application decision versus an
10 incorporation into an implementation plan. And I can
11 generally describe those for you.

12 Once again, it's related to potentially the size
13 of the project. The, as you mentioned, newness of the
14 technology, if it's something that we haven't explored
15 before. The available funding, what we're currently
16 collecting under the Renewable Energy Standard and Tariff,
17 and whether or not that's sufficient to support the new
18 project. The above-market cost of the project as well
19 could be a consideration.

20 A final consideration could be if we are choosing
21 to or requesting to go beyond compliance or significantly
22 beyond compliance with the Renewable Energy Standard.

23 Q. When you referred to one of the influencing
24 characteristics a moment ago, you had characterized it as
25 the above-market cost of the project. Is that the sort of

1 situation that in the past has occasioned requesting
2 approval for a premium associated with the renewable
3 project?

4 A. Yes, that's correct.

5 Q. Okay. Also, on Page 11, at Lines 20.5 through
6 24.5 of your prepared testimony, you refer to the, quote,
7 capital carrying costs of any capital investments made by
8 APS, close quote.

9 Would you please provide some examples of such
10 capital investments as APS might make in connection with
11 renewables between now and 2015 as contemplated by this
12 portion of the settlement agreement and your testimony?

13 A. Sure. I have two specific examples. One is an
14 application that is pending before the Commission right
15 now, and that is our Flagstaff Community Power Project
16 where we are proposing to own and operate about 1.5
17 megawatts of photovoltaic generation, both on customers'
18 properties as well as stand-alone generation. And we are
19 proposing to own that and proposing to collect the capital
20 carrying costs through the RES until such time as it is
21 rate based.

22 Another example that we are considering but have
23 not determined the direction that we'll go at this point
24 in time is ownership, potential ownership of the
25 photovoltaic projects that are mentioned in the settlement

1 agreement.

2 Q. And when you say mentioned in the settlement
3 agreement, you mean the one referred to and provided for
4 in paragraph 15.3?

5 A. I'm just checking the reference, but yes, that's
6 exactly it.

7 Q. Let me ask you in that regard, Ms. Lockwood, if
8 you would take a look at Exhibit WRA-1, which I gave you
9 during the recess this morning. And you will note in that
10 pie chart or diagram that in the upper left corner with a
11 dashed line there is a category for other renewable
12 resources, including central station PV, in-state wind,
13 government program. Do you see that?

14 A. Yes, I do.

15 Q. Would the projects that you just mentioned, the
16 Flagstaff project and the utility-scale photovoltaic
17 project, should the latter become one that APS owns, would
18 those projects fit into that portion of this pie chart?

19 A. Mr. Robertson, I believe that they would. I have
20 to say that I haven't verified any of the numbers or
21 portions on this graph. But generally, that appears to be
22 a correct depiction of where they would fit in our
23 portfolio.

24 Q. And those, you indicated, would have capital
25 carrying costs in the nature associated with or

1 contemplated by the settlement agreement associated with
2 them; is that correct?

3 A. That is correct.

4 Q. I'm sorry. I didn't hear you.

5 A. That is correct.

6 Q. Okay. Ms. Lockwood, do you know at this point in
7 time, are there any other projects that APS has under
8 consideration that would have capital carrying costs
9 associated with them as contemplated by the settlement
10 agreement and your testimony?

11 A. At this point in time, we have no specific plans
12 in that regard, no specific determination in that regard,
13 although we are considering ownership of projects more so
14 than we have considered in the past. So there could be
15 additional projects that would fall into that category.

16 Q. Okay. At Page 12, Lines 3 through 8 of your
17 prepared testimony, you discuss the Commission's review of
18 costs incurred by APS in connection with APS's request for
19 approval, quote, of the resource acquisition and renewable
20 energy programs adopted under the settlement agreement,
21 close quote.

22 Against that background, would you please
23 describe the procedural means by which such approvals will
24 be sought by APS and the procedural means by which
25 interested third parties can monitor or participate in

1 such approval proceedings or requests.

2 A. Certainly. The means to request approval are
3 essentially the same as we discussed a little bit earlier.
4 There could be individual filings for projects, it could
5 be included in the RES implementation plan that is
6 required to be filed every year, or it could also be
7 included in a future resource plan filing. And those
8 procedures are all -- processes are all open processes
9 here at the Commission that any party is welcome to
10 participate in.

11 Q. And when you refer to the three different
12 alternatives that you discussed earlier, are you referring
13 to those three alternatives that were discussed in
14 connection with my reference to your testimony on Page 11,
15 Lines 6.5 through 17.5, and Page 6 at Lines 20 through 23?
16 And I ask you simply to tie it together in the record.

17 A. Yes. Those are the same three mechanisms that
18 could be used for any of the projects that we have
19 discussed as a part of the settlement agreement.

20 Q. Okay. Now, up to this point, Ms. Lockwood, most
21 of my questions have been based upon a list of topics that
22 I previously identified for your attorney and you that I
23 would be asking you about.

24 During the last two weeks, you and I have had the
25 experience of sitting through the Commission's Open

1 Meeting in APS's PBI docket. And that might perhaps be
2 characterized, at least for me, as a tutorial that was
3 most interesting.

4 But let me ask you, against the background of the
5 two decisions that the Commission reached in that docket,
6 first of all, to increase the funding cap for
7 nonresidential programs to 220 million, and then with its
8 decision yesterday with the various amendments, but among
9 other things to make \$20 million available for schools,
10 how will those decisions by the Commission influence, if
11 in any way, the commitments of APS that are contemplated
12 in paragraphs 15.5 and 15.6 of the settlement agreement?

13 A. Mr. Robertson, I do not believe -- I should
14 definitively state they do not influence our commitment to
15 move forward with the projects that are in the settlement
16 agreement, that are identified in the settlement
17 agreement, and the programs.

18 Q. Directing your attention, Ms. Lockwood, to
19 paragraph 15.5 of the settlement agreement. Do you
20 anticipate that the program for onsite solar energy
21 discussed in that paragraph will be the subject of a
22 separate application filed by APS with the Commission?

23 A. Mr. Robertson, yes, we are committing in the
24 settlement agreement to file that program within 120 days
25 of the Commission's order.

1 Q. And would your response to a similar question
2 with regard to paragraph 15.6 and the program contemplated
3 by that provision be the same?

4 A. Yes, that's correct. Although I should note they
5 are -- as is allowed by the agreement, we would likely
6 file those together.

7 Q. Circling back to the Commission's decisions in
8 the PBI docket for one more moment, will the Commission's
9 two decisions in that docket within the last few weeks in
10 any way influence or affect the forms of resource
11 acquisition or renewable energy programs that APS will
12 intend to pursue pursuant to the settlement agreement?

13 A. It will not affect our commitment to move forward
14 with the program. With respect to schools in particular,
15 we will be informed by what the schools are already doing
16 as we put together the program. And part of our
17 requirement and our commitment under the settlement is to
18 consult with the schools as we put together that program.
19 So obviously, what they are proceeding with will inform
20 how we put together the program that we will be moving
21 forward with.

22 Q. Okay. Let's go back to Exhibit WRA-1 for one
23 more moment, Ms. Lockwood. And I'm going to have you
24 refer to different provisions of Section 15 in the
25 settlement agreement, and we'll start with paragraph 15.3.

1 As you understand this pie chart, which is
2 reflected in the exhibit, would the utility-scale solar
3 photovoltaic facility, which is the subject of paragraph
4 15.3, fit into that dashed line category described as
5 other renewable resources, including central station PV,
6 in-state wind, and government program?

7 A. Yes. I feel compelled to repeat that I haven't
8 verified the numbers here or the proportions, but it would
9 belong in that category as described.

10 Q. As a category?

11 A. Yes.

12 Q. And would the in-state wind project, which is the
13 subject of paragraph 15.2, from a category perspective fit
14 into that same category.

15 A. Yes, it would.

16 Q. And would the government programs, which is
17 referred to in that categorical box, be of the same type
18 as that contemplated by paragraph 15.6 of the settlement
19 agreement?

20 A. Yes, it would.

21 Q. And finally, looking at that very narrow sliver
22 at the top of the pie chart, solar or school solar
23 program, would that be where from a category standpoint
24 the program or programs contemplated by paragraph 15.5
25 would fit?

1 A. Yes, it would.

2 MR. ROBERTSON: Ms. Lockwood, that's all I have.

3 Thank you very much.

4 CALJ FARMER: Does any other party have questions
5 for this witness? Ms. Pecora, do you?

6 MS. WYLLIE-PECORA: No, Your Honor.

7 CALJ FARMER: Chair Mayes?

8 CHMN. MAYES: Thank you, Your Honor.

9

10 EXAMINATION

11

12 Q. (BY CHMN. MAYES) Good morning.

13 A. Good morning, Chairman.

14 Q. A few questions. Just going back to your
15 conversation with Mr. Robertson really quickly, you
16 indicated an increasing interest by APS in actually owning
17 some PV projects, and potentially owning the utility-scale
18 PV project at issue in this case.

19 Can you elaborate on that? Why is APS looking at
20 that now? Is it because you feel you have a greater
21 comfort level with utility-scale projects? What is sort
22 of going on there?

23 A. There's a variety of reasons, Chairman, that we
24 are exploring ownership. One of those reasons is that we
25 are more comfortable with the technology. As we go

1 further into the renewable energy arena, we gain more
2 experience and more comfort, and our desire to incorporate
3 them permanently into our portfolio.

4 Another reason is that we are looking to make
5 sure that all options are on the table for the best
6 alternative for our customers, so we want to include that
7 in the mix of consideration. And then that is enabled,
8 also, now that utilities are allowed to take advantage of
9 the investment tax credit.

10 So we want to be able to expeditiously move
11 forward, and we believe there's some benefits that we may
12 bring to the table that would be beneficial to getting
13 projects completed as well. So we're looking at that as a
14 range of benefits that we'll explore as we determine the
15 best way to move forward with that project.

16 Q. Okay. As you know, you probably heard my
17 discussion with Mr. Guldner about my concerns regarding
18 the language in the settlement agreement that would adopt
19 the renewable energy provisions, and I want to just go
20 over that with you, and, you know, understanding what
21 Mr. Guldner said.

22 What do you believe the words -- I'm looking at
23 Page 31 of the settlement agreement, Section 15.1, which
24 calls for APS to make its best efforts to acquire
25 1.7 million megawatt hours of renewables by 2015.

1 What is your definition of that, "make its best
2 efforts"? Is that voluntary, obligatory, or something in
3 between?

4 A. Chairman Mayes, as far as I'm concerned, that is
5 a firm obligation and a commitment to make that happen.
6 There are extraordinary circumstances. I'm certain that
7 was why the language was incorporated. But as a program
8 person, to me, that means that is something that APS must
9 go do.

10 Q. So if it's something that APS must go do, absent
11 extraordinary circumstances such as impossibility, I guess
12 to use contract language in those, why would APS object to
13 making this a requirement in an order?

14 Would there be a problem with us putting this
15 number in an ordering paragraph, 1.7 million megawatt
16 hours, with some language that says APS can come in and
17 ask for a waiver if it becomes impossible?

18 A. Chairman Mayes, I feel really that I'm probably
19 not the best person to answer that question. That may be
20 a better question for our attorneys with respect to how
21 the order is specifically crafted. What I can tell you is
22 that I believe that this is a commitment on behalf of the
23 company to acquire 1.7 million megawatt hours of energy by
24 2015.

25 Q. Okay. Well, again, I think -- I apologize for my

1 problem with the word "commitment," because it -- well, do
2 you believe it's a requirement that APS do these things?

3 A. Yes, I do.

4 Q. So you believe it would be -- if the Commission
5 approves this settlement agreement, you would be required
6 to acquire 1.7 million megawatt hours of renewable energy?

7 A. Yes, I do.

8 Q. Okay. Turning to Page 32 of the settlement
9 agreement, it states that renewable resources are the --
10 well, it says renewable resources are those defined in
11 A.A.C. R14-2-1802. APS shall obtain a mix of new
12 distributed and nondistributed renewable energy resources.
13 APS shall report to the Commission on its plans for and
14 progression towards acquiring the new resources, including
15 any delays or shortfalls in its RES implementation plans,
16 and RES compliance reports, and in future resource
17 planning filings.

18 My question was, what does that mean, "shall
19 obtain a mix of new distributed and nondistributed"? Does
20 that just refer to the other more specific elements in the
21 settlement agreement, i.e., the schools projects, the
22 utility-scale PV, the wind? Is that what you mean by
23 that? Is there something else that's meant by "shall
24 obtain a mix of new distributed and nondistributed
25 renewable energy"?

1 A. I don't believe there was anything more specific
2 intended, other than it won't be all of one or the other.
3 And you can certainly see that's represented in the more
4 specific commitments that are made in the settlement
5 agreement. So it was a recognition that it's not going to
6 be all nondistributed, nor will it be all distributed
7 resources, but it will be a mix of the two without any
8 further specificity between the categories.

9 Q. Okay. Is there anything in the settlement
10 agreement that addresses residential solar energy?

11 A. No, I don't believe there's anything addressing
12 that specifically.

13 Q. Why is that?

14 A. Why is that? The programs that were discussed
15 were ones that were of interest to all parties that were a
16 part of the settlement discussions, and the residential
17 program was simply something that was not part of those
18 conversations.

19 Q. So nobody was there representing residential
20 consumers who would be interested in seeing this program
21 advanced?

22 A. I don't know that that's true. Certainly RUCO
23 was participating in the process.

24 Q. And RUCO didn't bring it up?

25 A. To the best of my knowledge, it was not. I

1 wasn't in every meeting, but to the best of my knowledge
2 it was not a subject of discussion.

3 Q. Okay. Well, we'll get back to that topic in a
4 second.

5 So going back to what you said in response to
6 Ms. Grabel's questions, you are committed to accelerating
7 the timetable on the RFP for the PV, for the wind project,
8 and you think that the PV project timetable would allow
9 the Commission to vote on it?

10 A. Yes, we do.

11 Q. Can you just elaborate on that again, why you
12 think that is?

13 A. The PV project itself?

14 Q. Yeah.

15 A. Our intent with the filing that would be required
16 within 120 days would be to provide you something that you
17 could approve that would allow us to move forward with the
18 project. We are anxious to move forward with the project
19 as well. So it's not our intent to come in with multiple
20 filings before we can move forward with the PV project.
21 So we would be looking to put something in front of you
22 that you could vote on and that we could go execute.

23 Q. Okay. Looking at Page 32 again, Section 15.3,
24 would you agree with me that it would appear this
25 provision also is not obligatory? That -- well, all APS

1 is doing in this particular provision is filing a plan for
2 implementing a utility-scale PV project.

3 A. Chairman Mayes, I certainly consider it an
4 obligation. APS considers it an obligation to move
5 forward. And really, there's only one way that I can
6 think of that it wouldn't move forward, and that's if the
7 Commission did not approve it.

8 Q. Well, why didn't you, then, provide language that
9 states APS shall implement or build or buy a utility-scale
10 PV project? Why do we have these wiggle words in here in
11 between the words "APS" and "utility-scale PV project"?

12 A. I'll be honest, I'm not sure exactly what words
13 are of concern to you in this order.

14 Q. Well, why don't -- again, let me just restate the
15 question very clearly. Why does the settlement agreement
16 not state, "APS shall implement a utility-scale PV
17 project, which shall have a construction initiation date
18 no later than 18 months from the date of the filing"?

19 A. Just so that I'm clear, is that in place of
20 filing a plan? Would that be the suggestion?

21 Q. Uh-huh. Or you could have said, "shall do so and
22 shall file an application with the Commission."

23 A. With respect to the way you structured that, I
24 believe we -- all of the parties intended for the
25 Commission to be able to weigh in on this project. So it

1 was important that the Commission be able to approve a
2 plan or a project. And that is why it was structured the
3 way it was structured, not for any lack of commitment to
4 move forward on our part. We are committed to moving
5 forward with this project.

6 Q. You will move forward with the project?

7 A. Yes, we will, as long as we receive approval.

8 Q. Okay. Going back to Page 31, you note that the
9 1.7 million megawatt hours is consistent with APS's
10 resource plan. Why, then, should the Commission consider
11 it as a ratepayer benefit if this is something that you
12 were planning on doing all along? I mean, we are going to
13 vote -- presumably we'll vote on your resource plan at
14 some point soon, hopefully.

15 Why is this some sort of special benefit that the
16 Commission should actually weigh against the detriments of
17 a rate increase?

18 A. So Commissioner Mayes, we believe that the
19 commitments in the settlement agreement are -- and I
20 apologize. I keep using the word you don't like. The
21 obligations, the requirements in the settlement agreement
22 are specific and concrete. They are obligations.

23 The resource plan was that it was indicative of
24 the direction that we intended to go and descriptive of
25 how we intended to fill our resource needs for many years

1 into the future. In this settlement agreement, the --

2 CALJ FARMER: Excuse me. I've got to report that
3 they can't hear you on the -- so I think it's because your
4 face is turning towards the Commissioner. If you would
5 move the microphone that way. There, thank you.

6 THE WITNESS: Is that better?

7 CALJ FARMER: Yes, much.

8 THE WITNESS: Sorry about that.

9 So I think it's the difference between a plan and
10 an obligation. Our resource plan was descriptive of where
11 we were going. It was indicative of our intent to include
12 significant additional renewables into our portfolio, and
13 this settlement agreement is concrete and specific. It's
14 an obligation to double the RES by 2015, and calls out
15 individual projects that we are committed to moving
16 forward with.

17 Q. (BY CHMN. MAYES) And you equally consider the
18 Section 15.4, Page 32, a requirement to build a new
19 renewable energy transmission line?

20 A. Yes. And I will say that Mr. Guldner is
21 answering the renewable transmission questions.

22 Q. But you agree with Mr. Guldner, then, that that's
23 a requirement?

24 A. Yes, I do.

25 Q. Okay. So you had mentioned in response to

1 Ms. Grabel's question that of the 50,000 megawatt hours of
2 renewable energy produced from -- or I'm sorry -- of
3 annual energy savings from the school projects, only
4 5 percent of that would result from the ARRA funding?

5 A. Less than 10 percent.

6 Q. Oh, less than 10 percent. I'm sorry.

7 A. And that's based on our understanding of what the
8 schools intend to do with that funding.

9 Q. Okay. Do you have any status updates on that? I
10 know we talked about this the last couple of days, but do
11 you have a sense of when they're -- it's the School
12 Facilities Board that's responsible for that -- what their
13 process is, and do we have sort of a timing estimate on
14 when they're going to start spending out that money?

15 A. So I do have a letter that I had understood was
16 provided to the Commission outlining some timing, and it
17 was a pretty quick decision scheduling. I don't recall
18 the dates specifically. I know they were focused on
19 smaller school districts but had intended to move forward
20 as quickly as they could.

21 Q. Do you know if they were on track with that, with
22 the timetable they laid out?

23 A. You know --

24 Q. Have they come to you yet?

25 A. Yes. We have been working with them on a regular

1 basis. And, in fact, we're putting together in the very
2 near future a workshop for them on both energy efficiency
3 and renewables, just like we did for the cities and
4 counties who were looking at ARRA funding, block grant
5 funding. So that's coming up in the very near future, and
6 we're definitely working with them on a regular basis to
7 help them execute what they need to execute.

8 Q. The workshop would be for both the School
9 Facilities Board and schools broadly?

10 A. Yes.

11 Q. Can you let the Commission know when that's to
12 happen?

13 A. Absolutely.

14 Q. Okay. Let's go to Page 34 and the question of
15 adoption of the Renewable Energy Standard in this case.
16 And I raised this in APS's last rate case, and I was
17 reviewing the last order not too long ago.

18 But just referring now to Section 15.8 at
19 Page 34, it appears as though -- it states that APS agrees
20 to abide by the commitments set forth in paragraphs 15.1
21 through 15.7 of this section, regardless of the outcome of
22 any judicial challenge to the current REST rules,
23 presumably meaning the Goldwater Institute lawsuit.
24 Through this agreement, APS reiterates and renews its
25 support of the current REST rules.

1 Why, then, would APS not -- why, then, would APS
2 object to including an ordering paragraph stating that APS
3 agrees to abide by the commitments in this settlement
4 agreement, but also by the commitments set forth in the
5 Renewable Energy Standard as a floor?

6 A. So --

7 Q. In other words, agrees to -- in other words, we
8 would adopt the REST in this order as a floor, and these
9 provisions as well.

10 A. I think I understand the question. And really,
11 there are two primary concerns that we have with that.
12 One is, as you heard before, potential for conflict
13 between, then, the settlement agreement and any future
14 rule changes. And I realize that you did say as the
15 floor. There are likely to be other technical changes to
16 the rule as well, I would expect, moving forward, possibly
17 including new technologies and of the sort.

18 So we see that as something that would live on
19 for quite some time, and we would be dealing with it
20 administratively as the rule is changed over the next
21 however many years that we are talking about renewable
22 portfolio standard.

23 The second major reason major reason is that it's
24 inconsistent with the time frame that's contemplated in
25 the settlement agreement. This commitment that we have

1 made is through 2015, which is reasonably consistent with
2 the time frame under this settlement agreement through
3 2014. And going beyond that, we believe, is inconsistent
4 with the broad scope of issues that are addressed in the
5 settlement agreement.

6 Q. What does that mean? You just said it's
7 inconsistent with the broad scope of the issues addressed
8 in the settlement agreement. What does that mean?

9 A. I believe I misspoke there. It is going beyond
10 the year 2015. We believe we were able to make the
11 commitments that we made through the year 2015 as a result
12 of the broad range of issues that were dealt with in the
13 settlement agreement, including the financial health of
14 the company. So going beyond 2015 for one individual
15 segment is something that we would struggle with.

16 Q. Okay. I don't think I got to that question yet,
17 but I was just talking about the current RES and adopting
18 it up into any order that we might pass. And I
19 understand -- let me ask you this.

20 If those sort of bureaucratic issues that you
21 raised were not present, would you object to it?

22 A. Bureaucratic issues.

23 Q. Well, I guess you're worried that if we make some
24 future change to the RES, which I agree is possible, then
25 we would have to come back and do a 40-252 on this rate

1 case.

2 A. Yes.

3 Q. I would call that a bureaucratic issue. Because
4 we've done 40-252's for your company lots of times.

5 A. Sure.

6 Q. So if those bureaucratic issues weren't there,
7 would you object to it?

8 A. I think that the 40-252 issue is one that's real
9 for us and one that we struggle with regularly making sure
10 that we are consistently dealing with every order that has
11 been issued by the Commission.

12 The second part of that is also significant, and
13 hopefully I can explain that a little bit more. The RES
14 goes through the year 2025 as it's currently structured.
15 The settlement agreement goes through the year 2014,
16 largely, but we have made commitments to 2015 for
17 renewable energy. We believe that's the appropriate time
18 frame to be making renewable energy commitments as a part
19 of the settlement.

20 So that is one other major issue that we would
21 have with extending our commitment in the settlement
22 agreement to the year 2025 and incorporating those very
23 detailed rules into the settlement.

24 Q. Well, you're not planning on stopping meeting the
25 Renewable Energy Standard in 2016, are you?

1 A. No.

2 Q. Okay. So what is the problem?

3 A. If you look at the nature of the commitments that
4 we made in the settlement agreement, they are specific.

5 They go beyond the RES. As you point out, we are subject
6 to the Renewable Energy Standard rules as it stands today.

7 And we did make a commitment that we were going
8 to honor what we included in the settlement agreement
9 regardless of any judicial challenge. Fortunately, we
10 don't have to worry about that anymore. That's been
11 resolved.

12 Q. Well, hopefully. They say they're going to
13 appeal, but we'll win that appeal, too.

14 A. So the fourth time, maybe, is the charm.

15 Q. Right.

16 A. And just generally, we believe that those are
17 some significant reasons to remain with the commitments
18 that we've made in the settlement as opposed to
19 incorporating the rule itself.

20 Q. Well, is it a deal breaker for APS if the
21 Commission were to find a way to do both, to adopt both
22 the Renewable Energy Standard as it's currently written
23 and the provisions that you have agreed to?

24 A. I don't believe I have the authority to answer
25 that question.

1 Q. Okay. Who does? Mr. Guldner?

2 A. Possibly.

3 Q. Is he coming back to the stand?

4 A. I don't know.

5 Q. Okay. I'm going to need an answer to that
6 question before I vote on this case. So Ms. Grabel?

7 MS. GRABEL: We'll get you an answer, Chairman.

8 CHMN. MAYES: Okay.

9 Q. (BY CHMN. MAYES) Does the company believe that
10 the Commission adopted the Renewable Energy Standard in
11 the last rate case?

12 A. I don't think so. But honestly, the way you're
13 asking that question, I would want to go back and look.

14 Q. Well, I think it's an interesting question.

15 At Page 156 -- I can't believe the Judge had to
16 write an order that was 156 pages, but apparently it was
17 more than that, I guess.

18 Page 156 states: It is further ordered that a
19 requirement contained in the RES rules for APS is
20 appropriate at this time, and therefore it is not
21 necessary to adopt a specific target in this proceeding in
22 addition to what is contained in the RES rules.

23 I think that could be read as stating that we
24 adopted the RES rules in the last rate case. What do you
25 think?

1 A. Chairman Mayes, I vaguely am now remembering the
2 subject of discussion. And if I am correct, I know that
3 in that proceeding we had requested some very specific
4 targets, and that passage is likely referring to a decline
5 to accept their request for some very specific targets
6 that were outside of the rule structure that was already
7 in place.

8 Personally, I'm not an attorney, but if I were
9 reading it on its face, I would not believe that that
10 adopted the rule in the rate case.

11 Q. Well, we will ask Mr. Guldner about that, too.
12 But you can certainly anticipate that that is something
13 that I'm going to continue to pursue in this case, and
14 it's, I think, going to be fairly important to me.

15 Let me go on. Let's talk about the 1.7 million
16 megawatt hours that you have discussed in the settlement
17 agreement and that I think I referenced in my letters, a
18 couple of my letters in this case.

19 Has the company done an analysis showing whether
20 it could achieve some higher number than 1.7 million
21 megawatt hours going beyond the year 2015? In other
22 words, has the company done an internal analysis of
23 whether it could or will achieve 20 percent by 2020 or
24 25 percent by 2025?

25 A. Chairman Mayes, I want to make sure I accurately

1 answer your question, so I'll give you some specifics.

2 We do, for example, monitor federal regulation
3 and regularly look at any new developments there and
4 assess what that means to our portfolio. We are,
5 obviously, by the commitments that we make in the
6 settlement agreement, we're obviously on a trajectory to
7 well exceed the RES in future years, and can and do on
8 occasion look at what additional requirements would be and
9 would mean to our portfolio.

10 I'm not sure I'm answering your question, but we
11 do look at those sorts of questions on a regular basis,
12 depending on specific questions or issues that are before
13 us.

14 Q. Okay. So I think the answer to your question was
15 yes?

16 A. I think so.

17 Q. You have looked at -- you have looked at the
18 company's trajectory of renewables. You believe that
19 trajectory will exceed the current Renewable Energy
20 Standard, and you do look at scenarios beyond 15 percent
21 by 2025. Is that all correct?

22 A. That is correct.

23 Q. And could you provide the results of those
24 analyses to the Commission in this docket?

25 A. I'm certain that we can provide the results of

1 analysis that we have done. Just so that we would know
2 what to provide or what to look for or think about, is
3 there anything in particular that you would be looking
4 for? Something along the lines of what is pending at the
5 federal level?

6 Q. Sure. I think I would be interested in seeing
7 the company's internal analysis of the renewable energy
8 resources it believes it would need in place to shield
9 itself and its customers from the ill effects of cap and
10 trade. I would be interested in any analysis in your
11 possession that shows, you know, what APS believes its
12 renewable energy resources will actually be given its
13 current -- given its current trajectory of 1.7 million
14 megawatt hours in 2015 and beyond. I would be interested
15 in seeing any internal analysis that APS has done of its
16 renewable energy resource portfolio at 20 percent by 2025,
17 or 25 percent by 2025.

18 A. We can provide you some information on that.

19 Q. Okay. I would also be -- and I would be
20 interested in seeing the actual documents themselves and
21 any e-mails or other internal memos that you have done on
22 that issue.

23 But I appreciate the answer. And the answer was,
24 yes, you believe you will go beyond 2015 by 2025; is that
25 correct?

1 A. We believe that we'll go beyond 15 percent.

2 Q. I mean 15 percent by 2025.

3 A. Yes. And I think that's projected in our
4 resource plan as well.

5 Q. And so why is that? Why are you projecting to go
6 beyond 15 percent by 2025?

7 A. We have looked at our portfolio of options, and
8 we believe it's prudent and appropriate to continue to add
9 renewable resources for a whole variety of reasons that
10 are expressed most specifically in our resource plan
11 report.

12 Q. Well, what are those reasons?

13 A. Certainly diversification of our portfolio, the
14 concern and potential for a carbon program, and, of
15 course, lowering our overall emissions and greening our
16 sources of energy.

17 Q. If we could go to your direct testimony now just
18 for a few minutes. Ms. Lockwood, I would also be
19 interested in any information you could provide to the
20 Commission that would speak to the issue of whether APS
21 has made renewable energy a component of its investor
22 related strategy, of its investor relations program. That
23 may be something Mr. Guldner or Mr. Hatfield can talk to.

24 Going to Page 5 of your direct testimony, the
25 Q and A section about reporting requirements regarding

1 renewable energy. The final sentence in that paragraph
2 states: Should there be any expected delays or shortfalls
3 in meeting these renewable energy requirements, APS will
4 also notify the Commission consistent with this reporting
5 requirement.

6 Are there any consequences laid out in the
7 settlement agreement for not meeting these renewable
8 energy requirements?

9 A. I don't believe so. I guess I'll look at my
10 attorney for confirmation of that.

11 MS. GRABEL: Could you please repeat the
12 question, Chairman?

13 CHMN. MAYES: Are there any specific consequences
14 to APS to not meeting the renewable energy requirements
15 set forth in the settlement agreement?

16 MS. GRABEL: And I think the answer, Chairman, is
17 to direct your attention to Section 13, which describes
18 the performance measurements.

19 CHMN. MAYES: So that would all be it. I mean,
20 it's within the performance measurements section.

21 MS. GRABEL: That's correct.

22 CHMN. MAYES: So there are no sanctions -- I
23 mean, well, there's no provision that would specifically
24 discuss sanctions or fines for not meeting the Renewable
25 Energy Standard.

1 MS. GRABEL: The Renewable Energy Standard?

2 CHMN. MAYES: I'm sorry. I mean the renewable
3 energy provisions in the settlement agreement.

4 MS. GRABEL: There are none provided for in the
5 settlement. If it becomes part of an order, of course,
6 Chairman, that becomes part of the Commission's
7 deliberations.

8 CHMN. MAYES: If it were made clear that it was a
9 requirement, correct?

10 MS. GRABEL: As APS believes it is, yes, Chairman.

11 CHMN. MAYES: Okay.

12 Q. (BY CHMN. MAYES) Ms. Lockwood, I know we've
13 talked about it a lot in the last couple of days, but I
14 want to talk about the company's residential DG program.

15 And, you know, I'm concerned about that, and I
16 think it's extraordinary. I think the company's ability
17 to meet and commitment to the commercial program has been
18 extraordinary. The reaction to the PBI has been
19 extraordinary, but we've had a less than stellar
20 performance in the residential DG program.

21 So can you tell us today where the company stands
22 in meeting the residential DG requirement for 2009? Do
23 you happen to have those numbers with you?

24 A. I believe I do, if you give me a second.

25 Q. Okay, sure.

1 A. Chairman, what I do have is our 2008 numbers. I
2 don't see before me any projections for 2009.

3 Our 2008 numbers, total distributed energy
4 compliance was approximately 35 percent of the total
5 requirement. And of that, that was comprised of
6 approximately -- we had fulfilled in 2008 approximately
7 25 percent of our nonresidential requirement, and
8 approximately 40 percent of our residential requirement.

9 So at the end of 2008, we were well ahead of our
10 residential -- our residential program was ahead of our
11 nonresidential program. Our residential program really
12 has been the primary component of our distributed program
13 up until this year when our commercial program exploded.

14 So I would expect the requirement grew in 2009.
15 Our program did grow also in 2009, so I would expect it
16 would be higher than that at the end of 2009.

17 Q. What would be higher than that?

18 A. Our compliance number that was 40 percent of the
19 requirement in 2008. I would hope and expect that it
20 would be higher than that in 2009, because of the
21 tremendous growth that we've seen.

22 Q. Okay. And for 2009, it will be above 100 percent
23 for the nonresidential, won't it?

24 A. For 2009, unfortunately, it will not, because
25 those projects won't be in the ground. But for 2010, we

1 do expect it will be above the requirement. We commit the
2 money to get them in the ground next year.

3 Q. But in 2009, will the -- is it safe to assume
4 that the nonresidential piece will -- compliance will be
5 higher than the residential compliance, or no?

6 A. In 2009?

7 Q. Yeah.

8 A. I can't definitively state that. It may be. I
9 can tell you to date, as of the end of August, we still
10 had significantly more residential megawatts installed
11 than nonresidential megawatts.

12 Q. Okay.

13 A. But we've got more nonresidential in the queue.
14 It just depends on what actually gets installed between
15 now and the end of the year.

16 Q. You know, I understand there's a lot going on.
17 The economy is, obviously, off terribly, and so people are
18 struggling and it's a difficult time. And despite all of
19 that, the residential program is up, as I understand it.
20 What was the number? 140 percent or something like that?

21 A. Something along those lines. It's grown more
22 than 100 percent for quite some time now, and it is up
23 significantly this year as well.

24 Q. Okay. But along comes this explosion in the
25 commercial program, and I'm wondering whether it's

1 possible that APS took its eye off the ball on the
2 residential program. Can you tell the Commission that
3 that didn't happen, that your resources weren't diverted
4 somewhat to the nonresidential piece in order to try to
5 deal with that and there was a lack of focus?

6 I ask that question because, you know, as we
7 learned yesterday, that you haven't spent your advertising
8 budget. You know, you didn't do that for some reason. I
9 guess you've got various reasons for that.

10 But can you tell the Commission that you didn't
11 take your eye off the ball?

12 A. Chairman Mayes, I can tell you that the majority
13 of our Staff that is dedicated to this program is
14 dedicated to the residential program. I can tell you that
15 the majority of our marketing efforts, 90 percent are
16 dedicated to the residential distributed program. We
17 diligently are working on that program.

18 I'm happy to talk all day about why commercial
19 has done what it's done and we can have a very interesting
20 dialogue about that, I'm sure. What I would like to
21 assure you is that we are very well aware of the
22 residential requirement. We work on it every day. We are
23 continuously assessing and reassessing how do we move that
24 forward in a responsible manner.

25 We are also very concerned about keeping up with

1 the growth of that program in terms of ensuring positive
2 outcomes for our customer, and I'm sure you have heard
3 some of those same concerns from the industry as well.
4 The qualified contractors program is a big topic of
5 discussion this year. We want to make sure as it
6 continues to grow that all of the appropriate safeguards
7 are in place.

8 So I can assure you we spend -- the majority of
9 our resources are dedicated to the residential program.
10 Our nonresidential program is overwhelmed and the folks
11 that are dealing with that are overwhelmed, and there are
12 a lot fewer of them than there are people that are dealing
13 with the residential program.

14 Q. Okay. I know that we passed an amendment in the
15 case yesterday that would ask APS to -- that does ask APS
16 to come forward with some proposals to try to bolster the
17 program. And you'll do that, and that will be a
18 supplement to your implementation plan.

19 And I guess the answer to my next question is
20 sort of one of timing. I'm wondering whether we will be
21 able to vote on those improvements to your residential
22 program either before we vote on this rate case or as a
23 part of this rate case?

24 A. Chairman Mayes, the timing of the supplement was
25 defined in the order yesterday. I believe it was

1 October 16. So you will have -- the Commission will have
2 in its hands our proposal.

3 And with respect to timing as to when that is
4 heard, I don't know exactly. I certainly would have no
5 objection to it being coincident with the timing of this
6 rate case.

7 Q. To what being coincident? The implementation
8 plan?

9 A. Yes.

10 Q. Your net metering plan tariff is in place; is
11 that correct?

12 A. I believe so.

13 Q. It's fully functional, operational. Are people
14 signing up for it? I know we approved it. You filed it;
15 we approved it.

16 A. I believe so, to the best of my knowledge.

17 Q. Can you provide in this case any information you
18 have on how many people are signed up for it?

19 A. I think, actually, that would be a question for
20 Mr. Rumolo to follow up on.

21 CHMN. MAYES: Mr. Rumolo. Okay. Don't forget,
22 Mr. Rumolo. Okay. If I forget, don't forget.

23 MR. RUMOLO: I think you'll remember.

24 Q. (BY CHMN. MAYES) Ms. Lockwood, you had
25 mentioned, I think, or someone mentioned in the last

1 couple of days that the company has filed an application
2 before the Commission on its -- let me try to find it.

3 An application for its residential new
4 construction program. I mean, a new measure for it, and
5 the Energy Star Plus measure for that program. Are you
6 familiar with that?

7 A. Yes, I am Chairman. That's not something that we
8 filed. It was something that we introduced as a part of
9 our marketing for residential installations. So it was a
10 new offering under our marketing plan.

11 Q. Okay. Because I'm looking at an application
12 dated June 29. Maybe -- I don't know. Maybe I'm
13 confused, but -- and it may be something for Mr. Wontor
14 but --

15 A. And he's shaking his head, so I suspect it's his.
16 CHMN. MAYES: Is that yours? Okay. And you're
17 up next, right? Okay.

18 Q. (BY CHMN. MAYES) But a piece of this is --
19 there's a solar component to this, isn't there?

20 A. Not to the best of my knowledge. I'm not
21 familiar with that application. I mean, the reference
22 that we've made in the last couple of days was our
23 supplement to our Energy Star Home program.

24 Q. Well, that's what I'm looking at.

25 A. All right.

1 Q. It says: APS Energy Star and Solar Homes, A
2 Builder's Guide.

3 A. Okay. It may be an attachment to that
4 application. Mr. Wontor can address whatever may be --

5 Q. It's Attachment A.

6 A. Okay.

7 Q. So you're familiar with that program?

8 A. Yes, I am.

9 Q. Okay. And what is -- and this program began
10 when?

11 A. This is a program we have been working on for
12 some time and we introduced to the builders, I would say,
13 towards the end of the first quarter of this year. We
14 recently just had our first community sign up. So that
15 was when it was more widely publicized.

16 Q. You had your first what?

17 A. Community sign up.

18 Q. What is that?

19 A. The Trilogy, Shea Homes, I believe, at Vistancia.

20 Q. Right. And my understanding is that -- well, can
21 you talk about that? The Shea Homes project at Vistancia
22 and how that works? The way it works is this is an
23 offering on all of their new homes in a particular
24 subdivision; is that correct? Solar is, or standard
25 offer?

1 A. So the commitment level is different. And I
2 should check my notes, if you'll pardon me for a minute.
3 I don't want to misspeak about this program.

4 Q. Sure.

5 A. And believe it or not, I don't have that in my
6 note, so I'll tell you generally the way it works and
7 offer to provide you any additional information that you
8 want.

9 A community has to commit to having every home in
10 the community be solar ready, and a certain percentage of
11 those have to be equipped with either a solar water heater
12 or photovoltaic system, or both. And depending on the
13 individual home itself defines the additional marketing
14 incentive that they're provided under this program. So it
15 is a commitment for the community to be solar, with
16 varying levels of participation allowing different levels
17 of incentives.

18 So in large part, I'm sure you understand that
19 this was our way of reaching out to the builder community,
20 of attempting to attract what we believe is really
21 significant in getting to where we need to go on the
22 residential market, which is new homes. We believe that's
23 really significant. And we worked with the builders over
24 a pretty good period of time, understanding what they
25 wanted, what they needed, and what would work for them.

1 And we're very happy with the outcome of the program and
2 expect to have some good, significant participation.

3 Q. Okay. And again, this may be a question for
4 Mr. Wontor, but on Page 10 of the application for Energy
5 Star Plus, for proposed residential new construction
6 program energy efficiency measure Energy Star Plus, it
7 talks about -- it has a chart, and it lays out the number
8 of homes that APS projects will be Energy Star. And for
9 2010, it says 3,500, and then 250 would be Energy Star
10 Plus.

11 And I believe, if I'm not mistaken, Energy Star
12 Plus means that there's some renewable energy component.
13 No. He's shaking his head no. Okay. I guess I'm
14 confused. I'm trying to figure out why this is attached
15 to that application.

16 But let me ask you this. How many homes does APS
17 project will be made -- will be solarized or made --
18 and/or made solar ready under the APS Energy Star and
19 Solar Homes program?

20 A. Chairman Mayes, I don't have the answer to that
21 question, but should be able to get it very quickly for
22 you.

23 Q. Great. Okay. And if you want to give that to
24 Mr. Wontor, he can provide it. That's fine, too.

25 Does APS see that -- see home builders as a

1 significant avenue for meeting its residential DG
2 requirement?

3 A. Absolutely.

4 Q. Okay. And is this your only tool or effort so
5 far to try to get into that sector, or are you making
6 other efforts, and have you thought about what else you
7 can do to get home builders involved?

8 A. Sure. We have a continuous dialogue with home
9 builders and developers with respect to solar energy.
10 This is really the tool that we believe is appropriate
11 today in that market. We do continue to look for other
12 avenues that might additionally be appealing to our
13 builders and developers, but that is really the only tool
14 that we have today.

15 Q. Okay. Can I just refer you to -- and then I'm
16 going to give up the microphone for a little bit. I might
17 have a couple of more questions. But refer you to WRA-1.

18 It appears from this pictorial depiction of your
19 renewable resource mix in 2015, and we, of course, knew
20 this, but it appears as though Starwood CSP project and
21 the Solana CSP project make up an enormous component of
22 your compliance with the RES. Would that be accurate?

23 A. That is correct.

24 Q. And what would that be? I mean, it looks like
25 more than 50 percent, but is that accurate?

1 A. I can't answer that question with precision, but
2 it is a very significant amount.

3 Q. Okay. Of course, APS no doubt believes and hopes
4 those projects will come to fruition, but what contingency
5 plans is APS making to backfill the gap that would be
6 created if either of those projects don't come through?

7 A. Chairman, we are confident that these projects
8 are moving forward. And as you know, we continue to
9 monitor them on a regular basis. We look at our mix on a
10 regular basis and consider those contingencies.

11 And assuming this settlement were to proceed and
12 the projects that we have identified there, that would be
13 another component of assuring that we get to the levels
14 that we've set forth in the times that we've agreed to.
15 So there's a continuous process is, I guess, the best way
16 I have to --

17 Q. Well, presumably Solana and Starwood make up a
18 big piece of the 1.7 million megawatt hours, correct?

19 A. Solana is not included in the 1.7. That was a
20 previous commitment. Starwood does make up a significant
21 portion of that.

22 Q. Okay. Well, let me ask you again. What is APS's
23 contingency plan if either or both of those projects do
24 not come through as a result of the credit crisis facing
25 this country?

1 A. We are today finishing up a couple of RFPs that
2 we have initiated that would be part of our plan. We
3 would also --

4 Q. Can you describe those RFPs? That goes to my
5 next question.

6 A. Sure.

7 Q. What RFPs are you engaged in now?

8 A. There are two that are currently outstanding that
9 we are working through right now. One is the distributed
10 energy RFP, which you have heard some about, I'm certain.
11 And the other is a small generation RFP as well. Those
12 are two that we are finishing up. The 2008 RFP that we
13 completed, Starwood was the project that resulted out of
14 that.

15 We would be obviously moving forward with
16 additional solicitations in the coming months, including
17 ones that will likely result from this settlement
18 agreement.

19 Q. Can you describe the -- when you say you have
20 results from the DE RFP and the small gen RFP, can you
21 describe the results of those?

22 A. Sure. We, in fact, have included in our 2010
23 implementation plan a request for the authorization to
24 move forward -- sufficient to move forward for the
25 projects that we've identified in the DE RFP, which we are

1 continuing to negotiate and develop. Those are not
2 completed yet.

3 But we are very excited with the results of that
4 RFP and believe we will be able to acquire a significant
5 amount of distributed resources through that process and,
6 importantly, for about half of the price of our standard
7 program. So it's something that we're very excited about.

8 And I have to point out that that RFP was open to
9 both nonresidential as well as residential.
10 Unfortunately, we got no residential proposals as a part
11 of that RFP.

12 And then with respect to the small generation, we
13 got a -- we had a very robust response to that RFP and
14 believe that moving forward with that category of projects
15 definitely was the right thing to do, and we thank the
16 Commission for agreeing in our last implementation plan.

17 That RFP was aimed at smaller projects that don't
18 necessarily compete very well with the likes of Solana and
19 Starwood, and we are likely to see several projects come
20 out of that in the range of one to 20 megawatts. But once
21 again, we're still continuing down that road and have no
22 final results or agreements as a result of that.

23 Q. Well, okay. How many responses did you get to
24 the small gen RFP total?

25 A. I don't have that information in front of me, but

1 it was --

2 Q. It was large?

3 A. Yes, it was significant.

4 Q. Was it 70 to 100 range, or something like that?

5 A. You know, the number that sticks in my mind is we
6 had over 100 participants in the bidders conference. I
7 don't know how many actual responses came in the door, but
8 there was significant interest.

9 Q. Okay.

10 A. Most of those were photovoltaics. We were hoping
11 to get some other technologies but --

12 Q. How many people did you short list? How many
13 projects did you short list?

14 A. I don't recall the exact number.

15 Q. Can you provide that?

16 A. Yes, we can. It's less than ten.

17 Q. Less than ten. And you're narrowing that down
18 to, what, two?

19 A. I don't know what the final number will be, but
20 we would expect and hope to result in more than one
21 project.

22 Q. Why so few? What was the -- maybe it goes back
23 to the implementation plan.

24 A. Yes. We put this forward as a pilot. We wanted
25 to see if there was interest and value in that size of

1 project, and clearly there's a market for it. We had
2 included in the implementation plan both an energy target
3 as well as a budget. So we are looking to stay fairly
4 true to that commitment.

5 We also would look forward to doing that again.
6 And, in fact, have proposed to do it not in 2010, because
7 we think that's a little bit tight with respect to timing
8 to move forward with a second one, but definitely in 2011,
9 and propose to do so.

10 Q. Has APS considered signing more than -- or
11 requesting approval from the Commission for signing more
12 than one or two of those projects?

13 A. We've talked about the range of possibilities.
14 We are looking at this as something of an ongoing program
15 and would anticipate looking again at a broad
16 solicitation, and hopefully continue to select more
17 projects in future years.

18 Q. Well --

19 A. So I think that answer was no.

20 Q. Why not? And you and I have had this discussion
21 a number of times, and one of my concerns is -- and I
22 expressed some frustration, and I expressed it yesterday,
23 -- is we have got nothing in the ground.

24 We've got nothing to show for the RES, with the
25 exception, the very notable exception of what people are

1 putting on their rooftops. And that's great, and you're
2 right. I mean, I almost felt bad yesterday for getting on
3 your case about this issue, because you rightly pointed
4 out, well, Commissioner, you wanted us to focus on DG, and
5 that's what you went out and did.

6 But in the meantime, we don't have, you know,
7 anything else that's visible to the public that's sort of
8 in a more moderate range, either small, you know, sort of
9 small utility-scale solar or wind to show for the RES.

10 And you have been talking to us about this small
11 generation RFP for a long time, and when did you issue
12 this?

13 A. That was issued earlier this year.

14 Q. Okay. When in early 2009?

15 A. Yes. I don't remember the exact date. I want to
16 say it was around March. So we're progressing well with
17 that. The RFP takes a while and negotiating contracts
18 takes a while.

19 But if I may, I certainly understand your
20 frustration. We do have a couple of projects here in
21 Arizona, and, obviously, a couple of projects outside of
22 Arizona. We have a landfill gas project that's going to
23 be starting up here pretty soon, as well as the biomass
24 project up near Snowflake.

25 But I think the good news is that you will see

1 several solar projects, large solar projects in the ground
2 next year, both as the result of our RFPs that will be
3 significant, as well as some very significant customer
4 projects that we expect to be in the ground next year,
5 photovoltaic projects as well. So I think you're going to
6 see some nice, large projects in the ground next year,
7 Commissioner Mayes.

8 Q. Okay. Well, that's great, and I look forward to
9 seeing that. But could you provide to the Commission
10 confidentially in this docket, and to the parties
11 confidentially and under seal, if necessary, the results
12 of your small generation RFP and your DE RFP?

13 A. We'll provide in the appropriate form, yes.

14 Q. Okay. Well, can you provide it in the form that
15 you usually provide it to me when you come visit my office
16 and show me the results of your RFPs?

17 A. I certainly can. I just don't know if what we
18 typically provide you with is confidential. I believe --

19 CHMN. MAYES: Well, I'm not saying it would be
20 confidential. You know, so I would like that, and I would
21 like the parties to have it and the other Commissioners to
22 have it.

23 Has everyone signed a confidentiality agreement?

24 MS. GRABEL: Chairman Mayes, I don't believe that
25 all of the parties have signed a confidentiality agreement

1 that would necessarily give them the types of information
2 that you're requesting, but we'll review it.

3 CHMN. MAYES: Has anybody signed a confidentiality
4 agreement?

5 MR. MUMAW: I thought I was out of it this
6 morning.

7 Some parties, Madam Chairman, have not signed
8 confidentiality agreements, simply because they don't have
9 any desire for confidential information.

10 Those who have, which I would characterize as the
11 majority, the agreements distinguish between items that
12 are confidential, for example, because they contain
13 forward-looking financial projections; therefore, under
14 SEC regulations cannot be made public. Those are kind of
15 distributed to anyone who has signed a confidentiality
16 agreement.

17 There's another designation, and I'm sure this
18 would fall within that, that indicates that they are
19 competitively confidential, and they will be provided to
20 parties that APS does not deem to be competitors or, in a
21 sense, market participants in that particular area.

22 For example, obviously, RUCO and Staff and
23 Mr. Crockett's clients are not market participants.
24 Arguably, maybe Mr. Robertson's clients are considered
25 market participants. So there may be some distinction

1 drawn as to who can obtain this sort of information even
2 under a confidentiality agreement.

3 But within the scope of those agreements, we have
4 no problem providing this to the other parties, again,
5 that have executed confidentiality agreements. And,
6 obviously, we would provide it to the Commission and Staff
7 and so forth.

8 CHMN. MAYES: Okay.

9 MR. MUMAW: Is that good enough?

10 CHMN. MAYES: That sounds good to me.

11 Mr. Robertson is going to --

12 MR. ROBERTSON: Your Honor, Chairman Mayes,
13 following up on Mr. Mumaw's comment, I have signed so many
14 confidentiality agreements of late, I don't remember
15 whether I signed one in this case or not. But I would
16 like to have the opportunity to explore whether or not the
17 agreement I signed, if I did, or one that I would be
18 willing to sign would entitle me to the information that
19 you have requested, because it is of interest as you
20 described it. So I just wanted to make that statement for
21 the record. Thank you.

22 MR. MUMAW: Your Honor, we'll certainly work with
23 Mr. Robertson. And we've, I think, through the many
24 proceedings in front of this Commission, attempted to work
25 with parties.

1 On the other hand, I hope the Commission would
2 understand that there's some information that, ironically,
3 you know, we wouldn't care if it were in the Arizona
4 Republic, as long as we could be assured that market
5 participants wouldn't be reading The Arizona Republic that
6 day. So it puts us in an unusual circumstance.

7 But we have worked with Mr. Robertson in the past
8 and we know who he represents and so forth, and I
9 anticipate we'll work successfully with him in this case
10 as well.

11 CALJ FARMER: Okay, that's fine. If you run into
12 a problem or something, just bring it to our attention.

13 Mr. Crockett.

14 MR. CROCKETT: Your Honor, just for the record,
15 as Mr. Mumaw has pointed out, I have signed such an
16 agreement, to the best of my knowledge. I have signed a
17 number. But I do believe that I signed one in that regard
18 as well so that I would be -- have access to all of the
19 information that the company is presenting in connection
20 with this rate proceeding.

21 CALJ FARMER: Okay. And Commissioner, did you
22 want it as an exhibit?

23 CHMN. MAYES: If that's -- well, I mean, a
24 confidential exhibit, yeah.

25 CALJ FARMER: Well, I think it would be helpful

1 if we were at least to have some label attached to this
2 document for the record, if it ever needs to be reviewed.

3 MR. MUMAW: Let's compile the document, and then
4 I think we can decide what we want to call it.

5 CALJ FARMER: That's fine.

6 CHMN. MAYES: And then I don't think -- and by
7 the way, I'm not suggesting that it is confidential,
8 because I think that, you know, there's -- you know, the
9 parties generally ask for too much confidentiality. So I
10 just want that to be on the record. But I would like the
11 information, and I figured APS was going to object to
12 providing it since you have not finished the negotiations
13 on those projects.

14 Q. (BY CHMN. MAYES) I don't think this will be
15 confidential, and I think I asked this of Mr. Guldner, and
16 I don't know if I got a response that was filed later, and
17 maybe he put me off to you, Ms. Lockwood, so let me ask
18 you this.

19 Can you provide for the Commission an exhibit or
20 an answer that discloses how much customer-sited solar APS
21 has added to its system in the last two years, comparing
22 that with how much utility-scale solar APS has added to
23 its system in the past two years, and how much for both of
24 those categories is forecasted for 2010 and 2011?

25 A. So Chairman, I do have some answers for you. I

1 was looking at -- okay. Let me start and then see if that
2 works for you.

3 In 2007 and 2008 together, the last two complete
4 calendar years, 6.3 megawatts of customer sited solar has
5 been installed. And in 2009, through the end of August,
6 that number is 5.1 megawatts. We have in those years
7 added no utility-scale solar to our system.

8 Q. Hang on. Okay.

9 A. Sure.

10 Q. So 2007 and 2008, there were 6.3 megawatts of
11 customer-sited solar added. Then, in 2009, another 5.1
12 megawatts?

13 A. Through the end of August.

14 Q. Okay. Through August. So for a total of -- what
15 is that? 11.4 megawatts for those three years?

16 A. Yes.

17 Q. Okay. 11.4 megawatts of customer-sited solar.
18 And then for those three years, how much utility scale?

19 A. None.

20 Q. No utility-scale solar?

21 A. No utility-scale solar.

22 Q. All right. Now, how much -- was there something
23 that you were going to add to that?

24 A. No. I'm happy to talk about that in more detail,
25 if you would like.

1 Q. We'll get to that. But how much just utility-
2 scale renewable energy have you added to your system, and
3 you have added some to that?

4 A. Yeah. Currently, we have 221 megawatts of
5 utility-scale generation in service today, and another
6 3 megawatts which will come in service later this year.
7 And that is since 2006.

8 Q. Okay. Another what did you say? 3 megawatts?

9 A. Yes.

10 Q. Is that the landfill gas?

11 A. Yes, it is.

12 Q. All right. So setting aside Solana and
13 Lockwood -- I'm sorry. Lockheed Martin's project.

14 A. Yes.

15 Q. Sorry. God, I need a vacation or something.

16 Setting aside those two projects, you have
17 done -- your customers and you together, and the
18 ratepayers, have done 11.4 megawatts of customer -- of
19 solar energy in Arizona since 2007. But APS on its own,
20 APS and its shareholders, has added no utility-scale
21 solar, or, for that matter, any solar energy in the last
22 three years; is that correct? That's correct, correct?

23 A. That is correct.

24 Q. Okay. So, you know, you are, after all, out
25 there touting yourself as the solar energy utility of the

1 country and the most advanced -- one of the most advanced
2 when it comes to solar energy.

3 How can you make that claim with a straight face
4 if you're not adding any utility-scale solar to your
5 system, and the only utility-scale solar that will come
6 into your system, if it comes into your system, will
7 happen in 2013 or '14?

8 A. So let me address that, if I may, in a couple of
9 different parts. We have, obviously, signed 570 megawatts
10 of concentrating solar. Those are longer lead time
11 products. They won't be around until about 2013.

12 And just a little bit of history, if I may, and I
13 hesitate to do this, but I think it's important. Under
14 the old Environmental Portfolio Standard rules, we were
15 adding utility-scale solar. That was our primary
16 mechanism of attempting to meet those requirements. And
17 that was in small pieces, and, quite frankly, was pretty
18 expensive.

19 In 2006, with the new Renewable Energy Standard,
20 we changed our approach. Instead of building those
21 systems ourselves, we went the route of competitive
22 solicitations looking for larger systems, better economies
23 through third parties, through power purchase agreements,
24 and that's how we have successfully added those projects
25 to date.

1 Now, there has been no utility-scale
2 photovoltaics in that mix, largely because they weren't
3 competitive and they weren't successful in the
4 solicitations. Now, we are seeing --

5 Q. And again, let's talk about that. They
6 weren't --

7 A. Sure.

8 Q. They didn't win the solicitations because they
9 were competing against New Mexico wind; isn't that
10 correct?

11 A. Chairman Mayes, we do look at -- we don't limit
12 it to in-state solicitations, although I would point
13 out --

14 Q. I know you don't limit it to in-state
15 solicitations, but they lost because they -- because APS's
16 only criteria for selecting those projects at the time was
17 what is the cheapest, regardless of whether the jobs are
18 created in some other state, or regardless of whether the
19 other economic developments might go to another state
20 associated with Arizona ratepayer dollars.

21 All you cared about, and there was nothing I
22 could do about it at the time because I was not in the
23 majority on this issue, all you cared about at the time
24 was whether it was the cheapest price. And I certainly
25 understand that perspective.

1 But my question was, those solar projects lost
2 because you were comparing them to New Mexico wind,
3 correct?

4 A. Chairman Mayes, we did select an Arizona solar
5 project in the same solicitation that we selected the New
6 Mexico wind project.

7 Q. What is that?

8 A. In 2007, High Lonesome and Solana.

9 Q. Okay. Well, you haven't selected anything that
10 is going to be concrete in steel in the ground in the next
11 two years, did you?

12 A. Not to date. But I will go back to our
13 discussion earlier of our small generation RFP, and those
14 we do expect to be in the ground next year.

15 CALJ FARMER: Let's take a break pretty soon.

16 CHMN. MAYES: Okay. All right. Well, I
17 appreciate the figures, and I guess we've got to break for
18 lunch.

19 CALJ FARMER: She's been going two hours. Let's
20 go ahead and take our lunch break here, and let's come
21 back at 1:30.

22 (TIME NOTED: 12:05 p.m.)

23 (Michele E. Balmer, Certified Reporter, was
24 excused from the proceedings.)

25 (A recess was taken.)

1 (The afternoon session resumed at 1:38 p.m.,
2 reported by Kate E. Baumgarth, Certified Reporter.)

3

4 CALJ FARMER: Let's go back on the record.

5 Chair Mayes, continue with questions.

6 CHMN. MAYES: Thank you, Your Honor.

7 Q. (BY CHMN. MAYES) Ms. Lockwood, I wanted to touch
8 briefly on a couple more points.

9 One, you and I have had a number of discussions,
10 and I have written a letter to APS, and I know APS has
11 responded and written a letter to -- I think both APS and
12 SRP about Whispering Ranch. And this is, as you know, an
13 area outside of Phoenix that was originally developed by
14 an unscrupulous developer who refused to put in electric
15 infrastructure as he was supposed to as a home builder and
16 a subdivider. And in any other similarly-sized
17 development the developer would have put in electric
18 infrastructure, as I understand, and paid for it and then
19 would have been refunded under the old policy.

20 That did not happen 30 years ago. A big 500 kV
21 power line was built through the area, I think by SRP. I
22 don't know whether APS co-owns that line, but as a result
23 those people have been without modern electricity for a
24 long time. Some of them have put in generators, as you
25 know. I'm told on any given night there are up to 500

1 generators in the desert spewing diesel carbon in the air.

2 I have talked to both utilities. Both utilities
3 appear not to want to build out to that area. And, you
4 know, I consider it a very unique circumstance. I have
5 talked to the utilities about potentially putting solar in
6 the area, and I wanted to see if you have any updates on
7 that situation.

8 A. Chairman Mayes, we have looked at Whispering
9 Ranch very specifically with regard to renewable energy
10 and options to that community. Solar obviously is
11 something that is the first thought, and a couple of
12 things to keep in mind there. One is that it would be off
13 grid, obviously, because they are not interconnected
14 today. Unfortunately many of the homes are trailers or
15 manufactured homes and wouldn't be well suited to
16 supporting solar installation. And then there is also the
17 issue of the up-front capital project economics associated
18 with installing solar.

19 So we have looked at it. We have done our best
20 to work with the community and educate them. That is an
21 option that seems to have some significant barriers.

22 We did identify another potential option for that
23 community. It has challenges as well. That was to
24 consider converting to biogas, biofuels instead of diesel,
25 as you were referencing with the generator.

1 To make that function -- and we believe that if
2 they were to manage, to coordinate and make it functional,
3 we could probably provide some incentives for that
4 conversion, but there is a couple of things that would
5 have to happen. They would have to look at equipment that
6 is there and ensure that it could receive the biofuel or
7 potentially make modifications to their generators. I'm
8 not certain.

9 They would also likely need to coordinate their
10 efforts to get a consistent supply, basically, to have
11 someone supply them with fuel on a consistent regular
12 basis. It would require a substantial commitment, and the
13 community would have to collectively bond together to do
14 that. So that was a challenge as well, but an
15 opportunity, and one we would definitely support if the
16 community was interested in moving in that direction.

17 Q. When you say "biofuel," what do you mean by that?

18 A. Nonpetroleum-based --

19 Q. Fuel?

20 A. Yeah.

21 Q. What would that be? Algae? I mean, I don't
22 know.

23 A. I don't know that it's algae. I think there are
24 commercially available biofuels today. What those are
25 actually comprised of, I should know. It's not coming to

1 me at this moment.

2 Q. Okay. Is that something that you could, you
3 know -- is this something that APS could propose as a
4 pilot or as a program as far as this case or that this
5 Commission could ask you to propose as a pilot?

6 We have been talking about this for several years
7 now.

8 A. So APS would be more than happy to support that
9 effort for the community. It would have to be something
10 that the community would commit to and collaborate amongst
11 themselves to do. It's not something that we could
12 necessarily do for them, per se.

13 Q. What? Can you elaborate on that? What do you
14 mean?

15 A. Well, the community would have to agree
16 collectively that that is something that they wanted to
17 do, first and foremost. I think that probably would be a
18 significant challenge for them collectively to decide to
19 work together to pursue this.

20 And then enough of the community would have to
21 commit to make it make sense economically. We could
22 certainly support that effort and would do whatever we
23 could do to support that effort if the community chose to
24 go that direction, and we believe we could provide
25 incentives for that.

1 Q. What incentives?

2 A. Under the distributed energy program.

3 Q. Okay. But they are not really -- I mean, they
4 are not even incorporated.

5 A. I understand it, and I guess that is the
6 challenge, that it's not an HOA that you could work with
7 or a city that you can work with. It really would have to
8 be a community coming together to decide that they wanted
9 to pursue such an option.

10 Q. And the problem that I have with that sort of
11 approach is, I mean, in the community they were
12 essentially victims of fraud. I mean, that is what I
13 think.

14 A developer came in, put the houses out there,
15 promised electricity and never gave it to them. I mean,
16 it's fairly unique -- well, I think that particular
17 developer did it in other areas of Arizona back in the
18 1970s, but so these are people that were victims --
19 potentially victims of fraud, and their land has now been
20 bisected by a huge power line, I think, owned by SRP.

21 Does APS have a piece of that power line; do you
22 know?

23 A. I don't know the answer.

24 MR. MUMAW: I'm told yes.

25 Q. (BY CHMN. MAYES) Okay. So it's an APS power

1 line that bisects their -- an APS and SRP power line that
2 bisects their land, and yet neither utility in my mind has
3 really stepped up affirmatively saying, you know, we will
4 finance some of this or we will really take the lead and
5 help this community.

6 I'm still trying to understand why that is, given
7 the unique circumstance these particular people were
8 defrauded. It's not like any other development in
9 Arizona. It's not like any other kind of development that
10 we are looking at in this case. These people were
11 defrauded. They were told that they were going to get
12 electricity, and the developer never did it. It's unique.

13 A. Chairman Mayes, I can tell you we have looked at
14 it from a renewable perspective, and we have identified
15 options. It's a challenge. I understand that.

16 Q. Did you apply for any stimulus funding for it?

17 A. To my knowledge, there was nothing available for
18 that sort of purpose. We weren't aware of anything that
19 would apply for that.

20 Q. Okay. Well, that is disappointing.

21 Let's go to another topic. If I could hand this
22 out, and I don't know what exhibit I'm on.

23 CALJ FARMER: Let's see. I think you are at 6.

24 (Discussion off the record.)

25 CALJ FARMER: Back on the record.

1 Let the record reflect that we have marked the
2 document as Mayes 6.

3 Q. (BY CHMN. MAYES) So, Ms. Lockwood, what you are
4 looking at is a copy of, I think, the front page of the
5 Pacific Gas & Electric blog on what they call "Next100
6 Dialogue, a dialogue of the next century of energy." And
7 then it states a project of specific gas and electric
8 companies.

9 And on this blog they have writers writing every
10 day or every week about what they believe the utility of
11 the future is going to look like and what they think their
12 utility is going look like. And they talk about the
13 integration of renewable energy and other sustainable
14 energy practices and how that -- they think that will
15 evolve at their utility and other utilities over time.

16 And I was wondering, you know, whether -- first
17 of all, have you ever seen this before?

18 A. No, I have not.

19 Q. Okay. And I was wondering whether APS has
20 considered doing that or is doing anything like it at the
21 company in terms of how to integrate renewable energy into
22 your business model and what your utility would look like
23 50 and 100 years from now.

24 A. So let me answer, I guess we have considered
25 doing something along these lines. We have talked

1 about -- and I'm not intimately familiar with all the
2 discussions, but I know we have talked about internally
3 how to use new social media to communicate with our
4 customers.

5 So I will probably stop there and say that is
6 about the extent of my knowledge of what we may be doing
7 in that regard. You know, I think it's a really
8 interesting way and a great way to communicate with
9 customers about the efforts that are going on. I also
10 understand blogs and other mechanisms require a good bit
11 of time and attention to make sure they stay relevant and
12 up to date.

13 Q. Well, you have a lot of people at APS that could
14 do this; right? You have legions of people in your
15 communications development that could work with you on
16 this, don't you?

17 A. I certainly know it's something that we are
18 interested in, and we do continue to explore and discuss,
19 but have not, to the best of my knowledge, committed to
20 anything along these lines.

21 Q. But it seems to me there are a few utilities out
22 there, including PG&E, that are signaling a pretty
23 dramatic change in their mind-set with a blog like this
24 that is committed to renewable energy and sustainable
25 energy. And it also seems to me that, you know, it's an

1 effort on their part to reach out to their customers, to
2 educate, to communicate with their customers about what
3 the utility should look like in the future.

4 Would you agree with me on that?

5 A. I would, yes.

6 CHMN. MAYES: Okay. Okay. Thank you, Your
7 Honor.

8 CALJ FARMER: Ms. Lockwood, I have a few
9 questions -- there are quite a few questions for you from
10 Commissioner Pierce.

11

12 EXAMINATION

13

14 Q. (BY CALJ FARMER) Are you familiar with the
15 Commission's renewable energy standard and tariff rules?

16 A. Yes, I am.

17 Q. Were you involved in the proceedings leading up
18 to the adoption of REST rules?

19 A. Yes, I was.

20 Q. Did some people and entities advocate for a
21 specific carve-out for wind and/or solar in connection of
22 the adoption of the REST rules?

23 A. To the best of my recollection, I don't believe
24 there was significant discussion about including a solar
25 or wind carve-out in the current REST rules.

1 There was significant discussion about removing
2 the solar carve-out that existed in the previous
3 environment rules. The primary discussion was around the
4 distributed energy carve-out or set aside.

5 Q. When the REST rules were being formulated, did
6 APS advocate in opposition to specific renewable resource
7 carve-out in preference of renewable resource neutrality?

8 A. Yes, I believe we did. And in the early phases
9 of the discussion we encouraged an overall standard with
10 those specific carve-outs.

11 Q. If you could speak specifically, I think he is
12 listening specifically on the Internet, so it would be
13 helpful.

14 Do you remember what APS's principal rationale
15 was?

16 A. We were looking at primarily the most
17 cost-effective way to bring additional renewable energy
18 into the system.

19 Q. Did APS advocate for that position during
20 settlement negotiations?

21 A. I don't believe there was discussion around
22 neutrality in the settlement discussions. We specifically
23 had discussions around the projects that were proposed and
24 are currently a part of the settlement.

25 Q. Would you agree that the Commission ultimately

1 adopted rules that are efficiently neutral between
2 renewable energy resources?

3 A. Yes, I would agree with that.

4 Q. Do you remember what the Commission's rationale
5 was in explaining its decision in this regard?

6 A. I don't recall any specific explanation of such.

7 Q. Would you say that the settlement agreement is
8 consistent with the principle of renewable resource
9 neutrality that was encompassed in the Commission's REST
10 rules?

11 A. Generally, yes.

12 Q. To the extent that you believe the settlement
13 agreement may be inconsistent from a renewable resource
14 neutrality, is that a good thing, a bad thing, and why?

15 A. I believe that the commitments in the settlement
16 agreement are appropriate, and there are some specific
17 projects that are not called out in settlement agreement
18 that we fully support and we conform with. And then there
19 is a component of our overall commitment of the
20 1.7 million megawatt hours that is not specified.

21 So I believe it's a good balance that is in the
22 settlement agreement.

23 Q. Do you have a copy of the settlement agreement
24 with you?

25 A. I do.

1 Q. If you could turn to paragraph 15.1, please.

2 Do you have that?

3 A. I do.

4 Q. Paragraph 15.1 of the settlement agreement
5 requires APS to make its best efforts to acquire
6 1.7 megawatts of new renewable energy resources, does it
7 not?

8 A. It requires 1.7 million megawatt hours.

9 Q. Okay. Correct.

10 A. 1.7 million megawatt hours of renewable resources
11 by 2015.

12 Q. Does the paragraph dictate which renewable
13 resources APS will acquire to meet that goal?

14 A. It acknowledges that APS will take a mix of new
15 distributed and nondistributed renewable energy resources.

16 Q. In that regard, is paragraph 15.1 consistent with
17 or inconsistent with the principle of renewable resource
18 neutrality embedded in the REST rules?

19 A. I believe it's consistent with the REST rules.

20 Q. Specifically with the principle of renewable
21 resource neutrality?

22 A. It certainly requires a mix of distributed and
23 nondistributed. It does not speak to any particular
24 technology within those categories.

25 So wind, solar, biomass, geothermal is

1 efficiently neutral in that regard, but it does specify a
2 mix of distributed and nondistributed.

3 Q. Continuing with Commissioner Pierce's questions
4 on now paragraph 15.2, that requires APS to issue a new
5 request for proposal for in-state wind generation;
6 correct?

7 A. Yes, it does.

8 Q. Is that paragraph consistent with the principle
9 of renewable resource neutrality?

10 A. It is resource specific and technology specific
11 and geographic specific. It is a component of the broader
12 package, which is more encompassing.

13 Q. Okay. But specifically about the principle of
14 renewable resource neutrality?

15 A. I would have to say, no. That is a specific
16 resource.

17 CHMN. MAYES: Your Honor, could I ask a question?

18 CALJ FARMER: Sure.

19 CHMN. MAYES: Ms. Lockwood, is there anything in
20 the rules that prohibits the Commission from adopting such
21 a provision in future rate cases?

22 THE WITNESS: Not to my knowledge, no.

23 CHMN. MAYES: Thank you.

24 Q. (BY CALJ FARMER) Can you explain why it is in
25 the public interest for the Commission to depart from the

1 principle of renewable resource neutrality?

2 A. We believe that a diverse portfolio, including
3 many different types of resources, is prudent and
4 appropriate, and we believe this is one component of our
5 diverse portfolio.

6 Q. Continuing with the questions from Commissioner
7 Pierce on this paragraph, is it better for the Commission
8 to establish the goal and then step back and let APS
9 achieve the goal in a manner that minimizes cost to
10 ratepayers or is it better for the Commission to not only
11 adopt the goal but command and control provisions that
12 prescribe exactly which renewable resource acquisition APS
13 should make to achieve the goal?

14 A. Generally we prefer for the Commission to set the
15 objective and to allow us broad discretion in how we
16 execute upon that objective.

17 It is the -- it would be within the Commission's
18 purview and discretion to weigh in on policy matters that
19 may impact how we go about that acquisition, and that
20 certainly is within the Commission's discretion to set
21 that policy.

22 Q. Are you aware of other instances where APS has
23 been ordered in a rate case to issue an RFP for a
24 specified in-state resource, and if so, please identify
25 those instances?

1 A. No, I'm not. In a previous settlement agreement
2 APS was ordered to conduct an RFP and seek to acquire
3 100 megawatts of renewal energy in that agreement, but it
4 was not in-state specific. But there was a provision if
5 it was out of state, we had to bring it back to the
6 Commission and ask for approval to move forward.

7 Q. Why is it in the public interest for the
8 Commission to approve a provision which specifically calls
9 for in-state wind RFP as opposed to allowing competition
10 from additional renewable resources, including
11 out-of-state wind resources?

12 A. The settlement agreement, the renewable
13 provisions were put together in consideration of broad
14 stakeholder interest, including the interest of
15 commissioners, and we believe that this provision would be
16 of interest to at least some commissioners.

17 Q. Is there a reason that in-state wind projects
18 cannot and should not be expected to compete in the larger
19 renewable arena?

20 A. I can speak to our experience to date. Actually
21 let me take that in two pieces. I will speak to our
22 experience to date and then what can be expected in the
23 future.

24 Our experience to date has been that Arizona wind
25 projects have not been as economically competitive. And

1 there is one significant primary reason for that, and that
2 is the capacity factors that we have seen for wind
3 projects in Arizona have been lower than ones that we have
4 seen from other states. So that is our historical
5 experience, is that they have been more expensive because
6 the wind resource was less than in other states.

7 And having said that, looking to the future,
8 there are wind projects that are continuously -- new wind
9 project that are continuously being developed today in
10 Arizona, and we don't know what we'll get with the
11 specific in-state RFP and a broad RFP. And it is
12 conceivable that an in-state wind project could be cost
13 competitive without a state wind project in the future.

14 I hope I answered your question.

15 Q. This is Commissioner Pierce's question. So all
16 of these questions that I'm reading to you are.

17 A. Okay.

18 Q. Okay. Does APS believe that the RFP is not
19 specifically limited to an in-state wind project and that
20 in-state wind projects will not result in the least cost
21 renewable resource alternative? If not, then why limit
22 the scope of the renewable RFP?

23 A. I certainly can't state definitively that it
24 would not be a least cost resource in a future RFP. I
25 know from our experience to date that it has not in the

1 past been the least cost resource or competitive with
2 out-of-state wind projects.

3 Once again, this provision is a recognition of
4 interest of stakeholders to see a wind project developed
5 in the state of Arizona, and the settlement was a
6 negotiation of all of those interests to result in the
7 package that you have before you today.

8 Q. What harm is there in opening the RFP to
9 out-of-state wind projects and presenting the Commission
10 with more options to review instead of less options?

11 A. I don't believe there is any harm in that. It is
12 still a matter of policy in the end as to whether or not
13 the project that is selected is an in-state or
14 out-of-state project.

15 Q. Okay. You need to speak up a little bit because
16 I'm watching to see if your voice lights up the green dots
17 on the board.

18 APS's ratepayers will ultimately pay for the
19 energy produced by the wind farm envisioned in paragraph
20 15.2; correct?

21 A. That's correct.

22 Q. To the extent that an in-state wind project is
23 more costly than an out-of-state wind project, ratepayers
24 will bear that additional cost; correct?

25 A. That's correct.

1 Q. Does APS believe that it is in the best interest
2 of its ratepayers to limit the wind RFP to in-state
3 projects? If so, why?

4 A. We believe that it is an appropriate and valid
5 part of the settlement agreement that is before you and in
6 consideration of the entire package.

7 Q. If APS believes it is in the best interest of its
8 ratepayers to limit its wind RFP to in-state projects,
9 does APS believe it would be even better for APS's
10 ratepayers if the settlement agreement limited the wind
11 RFP to areas within APS's service territory? If not, why
12 not?

13 A. We don't believe that it is necessary to limit it
14 to our service territory, and there are various factors
15 that could influence that. One specifically is the
16 quality of the wind resource may not be specifically in
17 APS's service territory. So there may be higher-quality
18 resources that are outside of our service territory.

19 Q. From the perspective of APS's ratepayers, how is
20 the proposal to limit the wind RFP to in-state projects
21 any different than a hypothetical proposal to limit the
22 RFP to projects in APS's service territory?

23 A. It could be considered a similar restriction
24 that -- a policy decision. I believe the in-state
25 limitation is prompted by the interest and the economic

1 development for the state of Arizona, and, of course, all
2 Arizonans benefit from that, not just APS customers.

3 Q. Is it rational to think that the one proposal is
4 good for ratepayers but the other proposal is bad? If so,
5 please explain that rationale.

6 A. I believe we are referring to the limiting to our
7 service territory versus limiting to the state?

8 Q. I think so.

9 A. I think bad or good truly aren't terms that I
10 would apply to either one of those.

11 Those are policy decisions that really are the
12 purview of the Commission to make, something that we
13 include in state recognizing the economic development
14 benefits of such.

15 You could also bash in a proposal that limited it
16 to certain counties or certain disadvantaged area. That
17 is also a policy decision.

18 So it's all a matter of degrees as to how much or
19 how little you would like to restrict and direct the
20 development associated with this project.

21 Q. Assuming no other party objects, would APS view
22 the removal of paragraph 15.2 a material change, and if
23 so, why?

24 A. To the best of my knowledge, we consider the
25 entire package as comprehensive and every piece of it is

1 important.

2 Q. Okay. Are there any other parties that would
3 likely object to the removal of that paragraph from the
4 settlement agreement, and if so, do you know who and why
5 they would object?

6 A. I don't know.

7 Q. Okay. Now, moving to paragraph 15.3, is that
8 paragraph consistent with the principle of renewable
9 resource neutrality?

10 A. I'll repeat my answer: It's the same answer to
11 the wind generation. It's specific technology that we
12 believe is consistent with a diverse portfolio. So it is
13 not truly resource neutrality.

14 Q. Why is it in the public interest for the
15 Commission to approve a provision that specifically calls
16 for consideration of a utility-scale photovoltaic
17 generation project?

18 A. We believe it is an important development for our
19 diverse renewable portfolio and believe that adding
20 photovoltaic generation would be beneficial to all the
21 parties that are involved in the settlement as well as
22 good for the state.

23 Q. Why shouldn't the Commission remove 15.3 from the
24 settlement agreement and allow APS to bring a
25 utility-scale photovoltaic project to the Commission for

1 consideration when APS feels that such a project is the
2 optimum resource alternative?

3 A. That's certainly one option. I do believe that
4 the package of renewable energy commitments or obligations
5 that are part of the settlement were important to many of
6 the parties to the settlement, and removal of any piece,
7 to your earlier question, may impact multiple parties to
8 the settlement.

9 Q. Continuing with Commissioner Pierce's questions,
10 it appears as though APS is eager to be ordered by this
11 Commission to develop a utility-scale photovoltaic
12 project.

13 Is that true?

14 A. We believe it would be an appropriate outcome and
15 an appropriate obligation.

16 Q. Why does the Commission have to order it? Why
17 can't APS make resource acquisition on its own accord?

18 A. We can and we do. This is a specific project
19 that is a part of this package that we are willing to
20 commit to.

21 We acquire resources on a regular basis of our
22 own accord and are consistent with the renewable energy
23 standard and our implementation plan.

24 Q. Is APS seeking to immunize itself from potential
25 prudence review of its resource acquisitions in the

1 future?

2 A. Would you repeat that question?

3 Q. Yes. Commissioner Pierce asked, is APS seeking
4 to immunize itself from potential prudency reviews of its
5 resource acquisitions in the future?

6 A. I'm not exactly certain how to go about answering
7 that question.

8 Certainly if a prudence review is appropriate, we
9 are confident in our acquisition and confident that they
10 would withstand such scrutiny.

11 In this case in particular, as in many of the
12 projects that we pursue, we believe it's important to give
13 the Commission an opportunity to weigh in on our request
14 to move forward with that project and that they agree that
15 it is an appropriate and prudent acquisition.

16 Q. Assuming no other party objects, would APS view
17 the removal of paragraph 15.3 a material change, and if
18 so, why?

19 A. I'll repeat my answer to the wind question, which
20 was similar. We believe this is a package that is put
21 before the Commission and that all parts of that package
22 are important.

23 Q. And do you know whether other parties would
24 likely object to the removal of 15.3 from the settlement
25 agreement, and if so, who and what would be the reasons

1 for objecting?

2 A. Specifically no, I do not.

3 Q. Okay. Now, turning to paragraph 20.6 --

4 A. Yes.

5 Q. -- Commissioner Pierce asks, this paragraph
6 requires APS to study the impact of its super peak and
7 critical peak pricing on the energy mix, air emissions,
8 and energy use by program participants.

9 Is there any reason why this study should not
10 evaluate APS's entire demand response program on the
11 foregoing issues, including its new time of use rates for
12 schools approved in paragraph 21.2?

13 A. I'm sorry. Your Honor, would you please repeat
14 that question?

15 Q. Sure. He says that that paragraph requires APS
16 to study the impact of its super peak and critical peak
17 pricing on the energy mix, air emissions, and energy use
18 by program participants.

19 Do you agree with that, that is what that
20 paragraph says?

21 A. Yes.

22 Q. Okay. Is there any reason why that study should
23 not evaluate APS's agency entire demand response program
24 on those same issues -- energy mix, air emission, and
25 energy use -- including its new time of use rates for

1 schools?

2 A. My tendency here is to suggest that that is a
3 better question for Mr. Rumolo.

4 Q. You don't know why some demand response programs
5 were singled out for study while others were left out?

6 A. I do not. No, I don't.

7 Q. Okay. Moving on to APS's 2009 renewable
8 implementation costs, in her June 9th letter to the
9 parties to the docket Chairman Mayes asked if the REST
10 rules should be adopted by the settlement agreement.

11 Are you familiar with APS's 2009 REST
12 implementation plan that was adopted by the Commission?

13 A. I am.

14 Q. Okay. I have put beside you up on the bench
15 Pierce No. 1, and it is a chart prepared by Commissioner
16 Pierce that graphically summarizes the major cost
17 components of APS's 2009 implementation plan.

18 The blue slice of the pie depicts the 85 percent
19 of renewable energy that will come from utility scale
20 projects. The light green slice represents 7.5 percent of
21 renewable energy that will come from commercial
22 distributed generation. The dark green slice represents
23 the 7.5 percent that represents residential distributed
24 generation.

25 When APS filed its renewable implementation plan

1 it included a \$10.3 million budget for administration and
2 advertising costs associated with distributed generation.
3 In preparing the chart he allocated \$2 million towards --
4 \$2 million of the administration cost to commercial DG and
5 \$8.3 million towards residential DG.

6 Have you had a chance to look in that slide?

7 A. Your Honor, I am familiar with the slide. I have
8 seen the slide previously, and we generally agree with the
9 characterization as it's laid out on this slide. We
10 believe it's fairly accurate.

11 Q. Okay. So you wouldn't modify any of the numbers?

12 A. No. The only -- there is only one thing I feel
13 compelled to point out on this slide, and that is that two
14 of the three pieces, the utility owned and the commercial
15 distributed, are largely paying for energy that is
16 provided in one year, this year. And the third slice,
17 which is the residential distributed, is paying for energy
18 that will be developed over 20 years.

19 So while we believe the numbers are fairly
20 accurate and have been divided appropriately, there is
21 that one note, that the residential distributed is
22 actually acquiring energy for 20 years to come.

23 CHMN. MAYES: Well, Your Honor, could I ask why
24 you make that point?

25 THE WITNESS: Well, obviously the majority of the

1 funds are going to residential distributed, and it is not
2 truly an apples-and-apple comparison.

3 It's true that the residential distributed is
4 consuming the majority of the budget, but a final analysis
5 would be required to look at on an actual energy delivered
6 basis the distinction between the two.

7 So it's important to note that the residential
8 funding is acquiring more than 7.5 percent of the
9 renewable energy requirement in one year. It's in
10 multiple years.

11 CHMN. MAYES: So those costs may look different
12 if you did that calculation?

13 THE WITNESS: That's correct.

14 CHMN. MAYES: Okay. By the way, Your Honor, was
15 that chart handed out to all the parties?

16 CALJ FARMER: It's been admitted as Exhibit 1.

17 CHMN. MAYES: I haven't gotten a copy of it yet,
18 so if Commissioner Pierce's office could provide it to the
19 other offices, that would be preferable.

20 Q. (BY CALJ FARMER) Assuming you are not associated
21 with the preparation of APS's renewable implementation
22 plan and you were looking at this slide for the first
23 time, would anything jump out at you?

24 A. Of course. What would jump out at you is that
25 the appearance of the issue I just discussed, the vast

1 majority of energy is being provided, which is true, for a
2 real small component of the budget, and a much smaller
3 portion of the energy is being provided in a much, much
4 larger part of the budget.

5 Q. Does APS believe that increasing our use of
6 renewable energy is important to reduce air pollution and
7 to address climate change?

8 A. Yes, we do.

9 Q. Are you familiar with the term "opportunity
10 cost"?

11 A. Yes, I am.

12 Q. Looking at this slide, what do you believe is the
13 opportunity cost of allocating \$57.6 million towards the
14 objective of obtaining 7.5 percent of the overall
15 renewable energy in 2009?

16 A. Well, certainly you could acquire more
17 utility-scale generation for those funds than you will
18 acquire through providing incentives to our distributed
19 generation customers.

20 Having said that, it's a policy decision that the
21 Commission makes with respect to how much of the funding
22 is dedicated to utility-scale resources and how much of
23 the funding is dedicated to distributed resources.

24 Q. Would it be possible for APS to double, triple or
25 perhaps even quadruple the amount of emission reduction

1 APS achieved in 2009 simply by reallocating a portion of
2 the fund currently allocated towards residential DG?

3 A. Yes, it would. That is -- quite frankly it's
4 just simple math today.

5 If you look longer term, once again you are back
6 to a policy discussion about what is to be achieved by
7 dedicating funding towards the distributed generation
8 program.

9 Q. If APS had allocated -- I'll start over again.

10 If APS had limited its allocation towards
11 residential DG to \$8 million and had increased its
12 allocation towards utility-scale projects by \$50 million,
13 how much more renewable energy could APS have acquired in
14 2009? And if you can't answer the question at this time,
15 please answer the question in a supplemental filing in
16 this case.

17 A. So I cannot answer the question with any
18 precision at this time. Obviously it would be more.

19 There is also a practical matter, though, of
20 acquiring that much energy in a short period of time. We
21 allocate it and then suddenly have that much new energy on
22 line that quickly, is simply a practical matter.

23 And if you would, just repeat the last part of
24 that question to make sure that we have the request.

25 Q. I will read the question again. This is from

1 Commissioner Pierce.

2 If APS had limited its allocation towards
3 residential DG to \$8 million and had increased its
4 allocation towards utility-scale projects by \$50 million,
5 how much more renewable energy could APS have acquired in
6 2009?

7 A. Thank you.

8 Q. Okay. So you can supplement somehow that
9 information?

10 A. Yes.

11 Q. Next question from Commissioner Pierce, your
12 direct testimony states that if the settlement agreement
13 is approved, APS will achieve approximately 10 percent
14 renewable energy by 2015.

15 His question for you is: How much renewable
16 energy could APS have acquired in 2009 had the Commission
17 required APS to spend the entire \$78.6 million on
18 utility-scale renewable projects? And again, this may be
19 one that you need to supplement.

20 A. Yes.

21 Q. Will you need to?

22 A. Yes, we will need to supplement.

23 Q. Okay. Back to the settlement agreement
24 paragraphs 15.5 and 15.6, the provision relating to solar
25 projects for schools and public buildings.

1 Who will ultimately pay for these projects?

2 A. The cost of these projects will be spread amongst
3 several different types of -- the cost for this programs
4 will be spread amongst different types of participants in
5 the program.

6 Certainly APS's customer will pick up a portion
7 of these costs through the RES surcharge. The schools
8 will also likely pick up a portion of these costs. And
9 depending on how it's structured, all of the taxpayers in
10 both Arizona and the United States could pick up a portion
11 of them if we are able to structure it in such a way that
12 tax benefits can be achieved.

13 Q. Okay. So would it be fair to say that APS's
14 ratepayers, including its residential ratepayers, will be
15 paying for the solar projects?

16 A. Yes. APS's residential ratepayers provide about
17 half of the funding for the RES.

18 So RES funding is provided through ratepayers,
19 which will provide funding for this project -- these
20 projects.

21 Q. Are paragraphs 15.5 and paragraph 15.6 unfair to
22 residential ratepayers; in other words, is it unfair to
23 residential ratepayers to use REST surcharge money
24 collected from them to install solar systems on school and
25 public buildings?

1 A. No, I do not believe. There are funds, as we
2 discussed here in this proceeding a very short time ago,
3 that are dedicated to our residential customers, and these
4 are other projects that will go on nonresidential
5 facilities. And also all of our customers will likely in
6 some way, shape, or form benefit from solar installation
7 on public facilities.

8 Q. In 2010 APS's distributed generation requirement
9 increases from 15 percent to 20 percent.

10 Should the Commission consider reserving the
11 entire additional 5 percent DG requirement for school
12 projects? If not, why not?

13 A. That is a decision for the Commission to make.
14 We are at a point with our distributed program where there
15 is -- there will be more projects and more customers who
16 would like to do projects than we can fund. So it will be
17 up to the Commission to decide ultimately where those
18 funds are directed.

19 We are open to and we were ordered yesterday to
20 look at a set-aside for the schools, and we are very much
21 in support of that.

22 How much is the Commission's discretion.

23 Q. With respect to the 50/50 split between
24 residential and commercial DG in the REST rules, is it
25 realistic to expect that residential and commercial DG

1 markets to develop at exactly the same pace year after
2 year?

3 A. No, it's not. It's a good aspiration, but there
4 are different circumstances and different markets that
5 will allow them to develop faster or slower.

6 Q. Given the improbability of complete symmetry between
7 the residential and commercial DG markets, what is the
8 opportunity cost of a strong enforcement of the 50/50
9 split? Wouldn't such an approach by the Commission delay
10 the deployment and raise the cost of distributed
11 generation?

12 A. Let me take the last part of that first.

13 I don't believe it would necessarily raise the
14 cost, per se, as long as the entire standard is not
15 raised, but it would potentially delay the total amount of
16 solar that is installed in the state. So it's not
17 necessarily a change, but a delay.

18 Q. Continuing with Commissioner Pierce's questions,
19 for example if the Commission were to become truly
20 insistent on obtaining a 50/50 split this year, wouldn't
21 the Commission have to increase the funding and incentive
22 for residential DG?

23 A. That is absolutely one mechanism that could be
24 considered to increase the uptake for the program.

25

1 FURTHER EXAMINATION

2

3 Q. (BY CHMN. MAYES) But not the only mechanism, as
4 you laid out in your September 4th letter to the
5 Commission; correct, Ms. Lockwood?

6 A. September 4th letter? Remind me --

7 Q. Well, it was the letter that was docketed in
8 advance of the PBI solar schools issue. You laid out
9 several options to the Commission.

10 A. I believe those options were around how to
11 accommodate the transfer of funds.

12 Q. Right, but the same idea holds.

13 A. Sure. You could investigate --

14 Q. And I guess Commissioner Pierce's question is to
15 be taken literally. I mean, you said earlier you didn't
16 know if you were going to meet your commercial requirement
17 for 2009.

18 Well, wouldn't we also have to increase the
19 surcharge for that if we were to hold you to the 50/50
20 split?

21 A. Chairman Mayes, that is a matter -- that is a
22 tactical issue.

23 Q. Well, the answer is yes, isn't it? I think
24 Commissioner Pierce's question was, if we were to hold you
25 to 50/50 split and require you to meet your full

1 residential requirement, wouldn't we have to increase the
2 surcharge? Well, wouldn't we have to increase the
3 surcharge if we held you to your commercial requirements
4 as well, which you say in 2009 you will not meet because
5 those projects aren't in the ground.

6 A. Chairman Mayes, I guess what I'm trying to convey
7 is I think you could double the surcharge on commercial
8 and you still wouldn't get them in the ground in time this
9 year.

10 Q. That is if they come to fruition?

11 A. Yes, that's correct. And that is probably true
12 to a certain degree on the residential side as well. You
13 would have a lag there, but there is a shorter
14 installation periods.

15 CHMN. MAYES: Okay.

16

17 FURTHER EXAMINATION

18

19 Q. (BY CALJ FARMER) Okay. Continuing with
20 Commissioner Pierce's questions, what would have happened
21 if the Commission denied APS's request to increase the
22 funding cap for PBI incentives from \$77 million to
23 \$220 million? Would commercial DG have essentially ground
24 to a halt until additional funding is available in 2010?

25 A. Yes, the commercial program would have stopped --

1 had stopped.

2 Q. When the idea of a 50/50 split between commercial
3 DG and residential DG was first introduced while the REST
4 rules were being adopted, did APS support the idea,
5 opposed the idea, and why?

6 A. I believe that we had -- I don't believe that we
7 supported the split on an energy basis, was our primary
8 dialogue. We were at the time advocating for a dollar
9 allocation or a dollar carve-out for distributed and
10 didn't have any objection to splitting the funding between
11 residential and commercial. We were concerned, though,
12 and didn't necessarily support a 50/50 energy split for
13 distributed.

14 Q. Did APS foresee some of the challenges that it is
15 experiencing now in attempting to comply with the 50/50
16 split in the REST rules?

17 A. Yes. We were concerned about the development of
18 the markets and different pace of adoption.

19 Q. Did APS foresee that strict enforcement of the
20 50/50 split could actually be counterproductive to the
21 goal of getting as much distributed generation deployed in
22 its service territory as quickly and as efficiently as
23 possible?

24 A. We certainly know today that there are more
25 commercial installations that are ready to go than we have

1 funding for. That is probably about the best answer I
2 have for that question.

3 Q. If the Commission were to adopt the REST rules in
4 this settlement agreement, would the Commission still
5 retain the ability to waive rules that it finds
6 counterproductive towards renewable energy?

7 A. The Commissioner certainly could waive rules to
8 waive provision in the settlement. My understanding that
9 that that would require reopening of the settlement in a
10 40-252 hearing.

11 Q. Continuing with Commissioner Pierce's questions,
12 how would you describe the renewable energy provisions in
13 paragraph 15? Do you think the provisions could be
14 described as ambitious?

15 A. Yes, I do.

16 Q. Which subparagraph would you describe as the most
17 ambitious in paragraph 15; subparagraph 1, 2, 3, 4, 5, or
18 6?

19 A. 1 was included in that, 15-1?

20 Q. Yes.

21 A. I would say the overall goal is the most
22 ambitious portion of the renewable energy commitments.

23 Q. And that is 15.1?

24 A. Yes. That's correct.

25 Q. If you were to compare the cost of paragraphs

1 15.1, 2, 4, 5, and 6, how would you rank them in terms of
2 costs? What is the most expensive paragraph, and what is
3 the least expensive paragraph?

4 A. If you will give me just a second.

5 Q. Okay.

6 A. That question could be answered in many ways, and
7 I have to beg forgiveness and not include 15.4 in my
8 answer because that is around renewable transmission and
9 Mr. Guldner is addressing 15.4, so I'm not prepared to
10 answer that question.

11 If you look at -- and I must say also 15.6 has no
12 specific parameters around it, so it is impossible to cost
13 it at this point in time.

14 But if you look at the three remaining
15 provisions -- the wind project, the PV project, and the
16 schools program -- from a total cost perspective the wind
17 project will likely be the largest of those and the
18 highest in terms of total lifetime cost.

19 The photovoltaic project will likely be the next
20 largest and the highest in total lifetime cost next.

21 The school's program will likely be the smallest
22 and therefore the lower cost in terms of total lifetime
23 cost.

24 Now, I would like to answer that question as well
25 in terms of relative above market or premium costs

1 associated with the energy.

2 The in-state wind project and photovoltaic
3 project at this moment in time, it could be -- either one
4 could be more economical. What we have seen most recently
5 is that the photovoltaic projects have done extremely well
6 and could be the least above-market or best value of the
7 projects that we have proposed. But that is yet to be
8 determined with a specific project.

9 The schools project will likely be more expensive
10 on a premium basis, and that will also depend though on
11 the mix of technologies that we deploy. We are
12 anticipating using three different solar technologies:
13 Photovoltaic, solar water heating, and day lighting. Day
14 lighting is a very economic-distributed resource and can
15 result in pretty low cost for that project.

16 So ultimately depending on how the program is
17 finally designed, it will impact the mix of
18 technologies -- the mix the technologies will impact the
19 premium associated with that project or the above-market
20 cost associated with that project.

21 Q. Okay. Moving on to Commissioner Pierce's next
22 question, in a separate docket that was decided on
23 Wednesday, yesterday, APS asked the Commission to approve
24 a new green tariff rate. In that docket APS indicated
25 that the premium for renewable energy has declined from

1 1 cent per kWh to 0.004 per kWh.

2 In light of this information is it possible to
3 place a fixed number on the cost of the increased
4 renewable energy requirement in paragraph 15.1?

5 A. Your Honor, if I may correct the question a
6 little bit.

7 The rate went from 1 cent per kilowatt hour to
8 0.4 cents per kilowatt hour.

9 Q. Okay.

10 A. So if I understand the question, it is, can we
11 place a value or a cost on the overall requirement in
12 15.1? Is that the question, to your understanding?

13 Q. Is it possible to place a fixed number on the
14 cost of the increased renewable energy requirement in
15 15.1?

16 A. In light of that change?

17 Q. In light of this information is it possible to
18 place a fixed number on the cost?

19 A. Well, we do have a projection on the RES adjuster
20 incorporating that commitment that is described in 15.1.

21 So we do have a projection on that.

22 Q. Okay. I'm sorry. Could you just explain for the
23 record what you mean? You have a projection for what?

24 A. So I believe that Commissioner Pierce was asking
25 can we state today or do we have an estimate of what the

1 additional cost will be incorporating the commitments in
2 15.1, which also incorporate commitments in the remainder
3 of the projects that we have been discussing.

4 So I can certainly answer the question of what
5 our projection is for the RES in 15.1, if that is the
6 question.

7 Q. Okay. There are a couple more questions here.
8 Let's see if it gets to that point.

9 A. Okay.

10 Q. In your direct testimony you state that the total
11 cost to implement the provisions associated with renewable
12 energy is unknown at this time and you do not provide an
13 estimate of their cost.

14 Is it your view then that the Commission should
15 order APS to comply with these renewable energy provisions
16 without any idea of the cost that they may impose on
17 ratepayers?

18 A. I believe that the settlement agreement requires
19 us to put forward our best efforts to achieve the
20 obligation in 15.1 and to put forth some very specific
21 projects.

22 So I do believe it is appropriate to move forward
23 with the settlement as it is crafted.

24 Q. Understanding that there are many variables that
25 may affect the cost, will you please provide the

1 Commission with APS's best estimate of the aggregate cost
2 of Section 15?

3 Is this what you were offering to provide a
4 minute ago?

5 A. I think so. I think so.

6 What I have is our projection of the RES cost,
7 and that is therefore the above-market cost of the
8 programs inclusive of those that we see today in the
9 settlement agreement and the overall obligation in 15.1.

10 We project that the RES surcharge would need to
11 collect in that year, in 2015, 218 million or an
12 equivalent of seven hours and 0.86 cents residential cap
13 on a monthly basis.

14 Q. And can you explain to me what those costs are?
15 Because I'm not so familiar with what is included in the
16 RES surcharge.

17 A. Yes. Our tariff today collects, I believe it's
18 78.4, but its not written down here, and that is on an
19 annual basis for the year 2009 -- I'm sorry -- our total
20 funding for the program, some collected through the tariff
21 and some collected through base rates. And that the
22 tariff itself or the adjustor itself has a cap for our
23 residential customers. It has a cap for three different
24 categories for customers, but the one that we talk about
25 most frequently is the residential cap on a monthly basis.

1 Today it is \$3.17 per month. In 2010 our
2 implementation plan has requested total funding of
3 \$85.5 million, which equates to a residential cap of \$3.41
4 per month.

5 So the numbers that I have provided are our
6 projections to meet all of our obligations under the
7 renewable energy standard as well as commitments in this,
8 which is inclusive of commitments in the settlement
9 agreement. And those projections are that the tariff
10 would need to collect \$218 million in 2015, which equates
11 to a residential cap of \$7.86 per month.

12 Q. And I think this is my question, not just the
13 dollar amounts, but what are those costs for? Are those
14 the capital carrying costs that I see in your settlement
15 agreement or --

16 A. So those costs are divided into several
17 categories, just like it is today. What makes up -- in
18 fact, you could even go back to Commissioner Pierce's
19 Exhibit No. 1. There is a portion that is dedicated to
20 the renewable energy that we purchase. So the
21 above-market cost of every megawatt hour that we purchase
22 today is allocated to the RES.

23 Q. Let me stop you there.

24 I thought some of that was going to the PSA?

25 A. That's correct. So there is a portion that goes

1 to the PSA today and a portion that goes to the renewable
2 energy standard tariff. And that is split out by what is
3 comparable to the conventional cost of generation or the
4 market cost and what is above market today.

5 So there is a split, and the PSA today does today
6 receive the majority of those costs.

7 Q. So when you said in 2015 the residential cap of
8 7.86, that doesn't include the PSA cost associated with
9 renewables?

10 A. No, it does.

11 Q. Were you going to provide an estimate of that,
12 too?

13 A. No, I was not. That is what we believe would be
14 the equivalent of procuring the energy from conventional
15 resources. So what we typically talk about is how much
16 above market or how much premium you would be paying for
17 those resources.

18 Q. All right. Keep going with your answer.

19 A. Sure. Sure.

20 Q. So were you finished? So you are saying that in
21 the RES is the amount that is above the market that goes
22 into the RES surcharge and then what else?

23 A. Oh, so there are several components to that cost.
24 One is the energy that we purchase today, every megawatt
25 hour we pay a certain price for, a portion goes to PSA and

1 a portion goes to the RES.

2 Then the other portion of those costs are
3 incentives that we pay to our customers for installing
4 distributed energy resources, both commercial and
5 nonresidential and residential.

6 And I should point out, Your Honor and Chairman
7 Mayes, that we forecast five years in our implementation
8 plan that we submit every year. We only request for
9 funding for one year -- we only request funding for
10 one year in advance.

11 The implementation plan we have before the
12 Commission right now goes to year 2014. We simply
13 provided those numbers from the next year in that
14 forecast.

15 Q. Okay. I guess my question was, in your testimony
16 on page 11 you talk about capital carrying costs
17 recoverable.

18 Are those recovered through the RES surcharge?

19 A. That is a -- there is -- as you know in the
20 settlement agreement there is a provision that would
21 acknowledge capital carrying costs to be collected through
22 the renewable energy standard as appropriate -- the
23 renewable adjustor mechanism as appropriate.

24 We also have an application before the Commission
25 today, our Flagstaff Community Power Project, where we are

1 proposing to own those resources. And in the interim
2 between rate cases, the capital carrying cost would be
3 collected through the renewable energy adjustor mechanism.

4 So it would potentially include some capital
5 carrying costs. That is a short-term cost that would
6 exist simply until the next rate case, and those costs
7 were incorporated into rate base.

8 Q. So the \$7.86 that you have in 2015 would include
9 whatever those costs were?

10 A. So that is a projection of what those costs could
11 be in year 2015, and it could include carrying cost, yes.

12 Q. Going back to Commissioner Pierce's questions, in
13 paragraph 15.1, 2, 3, 4, 5 and 6 can you provide the
14 Commission with segmented cost estimates for those
15 paragraphs?

16 A. I can provide you with some of them. I can give
17 you a range of total cost and a range of premium or
18 above-market cost for each of those, if you would like for
19 me to.

20 Q. Whatever kind of cost estimates for those
21 paragraphs I think is what he is looking for.

22 A. Okay. So the answer to Section 15.1, I think, is
23 what I just provided, which is the overall comprehensive
24 projection for the RES program inclusive of this higher
25 target by the year 2015. So I believe I answered that

1 one.

2 If you go to 15.2, which is the in-state wind
3 project, we project a total lifetime costs for a nominal
4 75 megawatt wind project to be between \$450 million and
5 \$500 million; that is lifetime cost. The above-market
6 cost for that we are projecting to be between 8- and
7 \$12 million a year. And once again, these are just
8 projections based on what we have seen and experienced in
9 previous solicitations.

10 Let me know when you are ready to move on to the
11 next one.

12 Q. I'm sorry. What did you say?

13 A. I was going to go through one more for you. I
14 wanted to make sure you were ready to move on.

15 Q. I'm ready.

16 A. 15.3 is the utility-scale photovoltaic project;
17 what I have before me -- what we have looked at to provide
18 to the Commission is an increment of 25 megawatts. That
19 is just a nominal amount. It could be more or less than
20 that. But as I answered earlier today, we believe that is
21 the approximate range for a utility-scale project.

22 The total lifetime cost for that project for 25
23 megawatt photovoltaic project is probably somewhere
24 between 175- and \$200 million. The above-market cost of
25 that project is somewhere between 2- and \$7 million per

1 year. And I have to note that the energy provided between
2 the those two could be different between the -- if they
3 are not directly comparable.

4 And then if you are ready I will move on to the
5 school's program, which is the last one that I have a
6 specific estimate on the cost for.

7 The schools program, really, could vary widely
8 depending on the technology mix that is selected to
9 achieve the 50,000 megawatt hours. It could range between
10 50 million and 175 million lifetime cost. That would be
11 somewhere between 7- million and \$15 million per year
12 above-market cost depending on the technology mix.

13 Q. Okay. Does that conclude your answer to that?

14 A. Yes.

15 Q. Okay. Can you please explain the assumptions
16 that you make in arriving at your estimate?

17 A. I believe I explained the majority of the
18 assumptions in answering the question for the wind
19 project. It is consistent with projects that we have seen
20 previously. It has an average capacity factor of about
21 28 percent and a nominal capacity of 75 megawatts.

22 For the PV project we would be looking at
23 nominally a 25 megawatt project or increments thereof, and
24 it would -- that is probably the primary assumption there,
25 is the size of the project.

1 And then the school's program really, the primary
2 assumption there is that we would use a mix of
3 technologies. And on the lower-cost end would be a higher
4 mix of technologies, such as daylight and solar water
5 heating. The higher end of that range would be more
6 photovoltaic deployed in that program.

7 Q. Can you explain what assumptions you used to
8 determine what would be above market?

9 A. Yes. We look at -- another term we use is
10 comparable cost of conventional generation or the cost
11 that would be -- the company would experience in providing
12 that energy from a traditional mix of resources: fossil,
13 nuclear resources.

14 Q. Did you make any assumptions about the cost of
15 those? Or were these at one point in time -- or how did
16 you project the same amount every year to be the same?

17 A. So we look at -- when we do an analysis, it is a
18 very specific and detailed analysis on a single-project
19 basis, and we look over the lifetime of that project, so
20 over the 20 or 30 years of the project, and we assess
21 those costs in that way.

22 The numbers that I provided are really based on a
23 previous analysis that we have done, not just a single
24 project, but multiple projects that would allow us to
25 project those ranges.

1 CHMN. MAYES: Your Honor, could I ask a question
2 on this point?

3 CALJ FARMER: Yes.
4

5 FURTHER EXAMINATION
6

7 Q. (BY CHMN. MAYES) Ms. Lockwood, were any of the
8 numbers, the above-market cost numbers that you provided
9 in your testimony just now, did any of them include the
10 estimated costs associated with cap and trade?

11 A. No, they did not.

12 Q. So can you redo your analysis and tell the
13 Commission whether there would be any premium at all if
14 Waxman Markey passes? And I know the company has done
15 that with Solano and other projects that you have brought
16 to us.

17 A. I believe we can.

18 Q. And would you agree with me that at least in the
19 case of Solano and I believe one of the renewable energy
20 projects that we have seen, the premium disappears? Do
21 you remember that? There is no above-market cost under
22 cap and trade?

23 A. I know the traditional analysis showed our
24 Starwood project at an 8 percent premium, I heard, but I
25 don't recall any specifics around analysis including

1 carbon. But you may be correct.

2 Q. I think I am. I have got the letter.

3 A. I believe you.

4 Q. Okay. So I would be interested in seeing it and
5 a more thorough analysis of what these above-market costs
6 look like under a cap and trade regime.

7

8 FURTHER EXAMINATION

9

10 Q. (BY CALJ FARMER) A couple more questions for
11 Commissioner Pierce, and then we are finished with these.

12 Will APS comply with the residential component of
13 the 50/50 split in 2009?

14 A. We do not believe that we will be fully in
15 compliance with that standard in 2009.

16 Q. If the Commission were to insist on APS obtaining
17 compliance on the residential DG requirement in 2009, what
18 would APS have to do to reach compliance?

19 A. Well, generally at this point I'm not sure,
20 considering there are only a handful of months left in the
21 year, that there is anything we could do short of -- I
22 will leave it at that.

23 I'm not sure there is anything we could do to
24 drive the demand to that level with the remaining months
25 of the year. We could certainly, as was explored

1 earlier -- there are avenues to increase deployment, and
2 we continue to explore those along with the Commission on
3 a regular basis.

4 Q. So then I guess you're saying there is no --
5 there is nothing APS could do to reach compliance in 2009?

6 A. From a practical perspective, I don't believe
7 that is true -- I believe that is a true statement, that
8 it would be just practically very difficult to facilitate
9 that many installations no matter how we went about it in
10 the remaining months of the year.

11

12 FURTHER EXAMINATION

13

14 Q. (BY CHMN. MAYES) And the same -- Your Honor, I'm
15 sorry -- would be true with your commercial program;
16 correct?

17 A. That is absolutely correct.

18 Q. You will not meet either side of that; is that
19 correct?

20 A. We are not likely to be in compliance on either
21 side this year.

22 Q. And one of the things you could have done to have
23 at least improved the number on the residential side was
24 to have spent your \$3 million in advertising that you're
25 leaving on the table. Would you agree?

1 A. Chairman Mayes, we are going to increase our
2 marketing and spend accordingly.

3 Q. Does the company now believe that it should have
4 spent that money? Does the company acknowledge that it
5 made a mistake in not doing everything that it could to
6 try to meet the residential program?

7 A. Chairman Mayes, we understand now that that was
8 the Commission's expectation. We had believed we were
9 making appropriate decisions at that time we made those
10 decisions, but now we understand there was a different
11 expectation.

12

13 FURTHER EXAMINATION

14

15 Q. (BY CALJ FARMER) And the final question from
16 Commissioner Pierce, you emphasized earlier that
17 increasing the incentives was one way.

18 What are the other ways?

19 A. Certainly we continue to raise awareness. So to
20 Chairman Mayes's point, continued marketing is important
21 and increasing participation. New programs that speak to
22 our residential customers are also very important, such as
23 our new solar homes program that is aimed at builders. We
24 believe that is also going to be significant into the
25 future in increasing participation.

1 CALJ FARMER: Thank you. The court reporter
2 indicates it's time for a break. Let's break and come
3 back at 3:30.

4 (Whereupon, a recess was taken from 3:16 p.m.
5 until 3:40 p.m.)

6 CALJ FARMER: Okay. Let's go back on the record,
7 and I think Chairman Mayes has a few questions.

8 CHMN. MAYES: Yes, Your Honor, real quick, just a
9 few as follow-up.

10

11 FURTHER EXAMINATION

12

13 Q. (BY CHMN. MAYES) Ms. Lockwood, Commissioner
14 Pierce asked some questions about the cost of renewable
15 energy, in particular the cost of out-of-state wind versus
16 in-state wind.

17 Are you -- would you agree with me that there may
18 be reliability and transmission constraint issues
19 associated with bringing wind in from other states,
20 including New Mexico, that could prevent APS from buying
21 out-of-state wind or make it more expensive than it looks
22 on the surface?

23 A. Certainly I would agree with you that
24 transmission for wind generally is a challenge, and the
25 path that we have used to bring in wind projects is really

1 strained in that respect. So bringing in other projects
2 from that area would be difficult.

3 Q. Okay. That is my next question.

4 Does Pierce Exhibit No. 1 include the cost
5 associated with building a brand-new transmission line to
6 Phoenix from New Mexico?

7 A. No, it does not.

8 Q. Okay. So if you added in the cost associated
9 with building new transmission lines, some of which would
10 be needed to do the utility-scale projects that are listed
11 on Pierce No. 1 or in APS's renewable energy standard
12 implementation plans, it would make it look much more
13 costly, wouldn't it?

14 A. Yes. I believe it's fair to say if you had to
15 build transmission to bring in out-of-state wind, it would
16 make it significantly more costly.

17 Q. And so when the Commission is trying to deal with
18 the question of whether we want a mix, a blend of both
19 distributed generation and utility-scale, we would
20 probably have to take into consideration not just the sort
21 of -- I would call it sophomore discussion of the base
22 cost of utility-scale renewable energy but other things
23 needed to get it here, like transmission, wouldn't we?

24 A. Certainly, Chairman Mayes. And also there is
25 some value in looking at geographic diversity of wind

1 projects, just like there is value in looking at
2 geographic diversity of solar projects, in that they have
3 different production profiles as well.

4 CHMN. MAYES: Okay. And, Your Honor, I would
5 like to hand this out. I only have four copies. I have
6 one for you and one for Kate and one for Ms. Lockwood, and
7 I will keep one. This is a -- I would like to mark this
8 as Mayes Exhibit No. 7.

9 CALJ FARMER: Off the record.

10 (Discussion off the record.)

11 CALJ FARMER: Back on the record.

12 CHMN. MAYES: Your Honor, what I have handed to
13 the witness is a copy of the R.W. Beck's study on solar
14 integration.

15 Q. (BY CHMN. MAYES) Ms. Lockwood, would you agree
16 that this is a copy of basically two sections of the
17 distributed renewable energy operating impact and
18 evaluation study conducted by R.W. Beck for APS under an
19 order by the Commission?

20 A. Chairman Mayes, it appears to be sections of the
21 study that you referenced.

22 Q. Okay. You should be looking at the front page of
23 this section, which is 5 -- it's says Table 5.1. It's
24 entitled "Avoided Total Capital and Fixed Operating
25 Costs"; do you see that?

1 A. Yes, I do.

2 Q. Would you agree with me that under just a medium
3 penetration case of distributed solar this study indicates
4 that APS and APS's ratepayers will benefit from a total
5 cumulative avoided capital investment cost of \$184 million
6 in the year 2025? Would you agree with me that Arizona
7 ratepayers will benefit from the deployment of distributed
8 generation to the tune of \$185 million by 2025?

9 A. Chairman Mayes, I agree with you that that is
10 what the study determined.

11 Q. Okay. Would you go to the high penetration case,
12 and would you agree with me that it demonstrates that
13 through the deployment -- a high penetration case of
14 deployed distributed solar energy, Arizona ratepayers will
15 benefit from a reduced capital investment cost at APS of
16 about \$300 million?

17 A. Yes, Chairman Mayes.

18 Q. Okay. So if we were to do what Commissioner
19 Pierce apparently is suggesting in his questions by
20 dramatically decreasing our investment in distributed
21 generation in Arizona, especially residential distributed
22 generation, would we be able to achieve the infrastructure
23 cost-related savings that are outlined in R.W. Beck's
24 study that we just read together?

25 A. No. Commissioner Mayes, the premise of the study

1 is deployment and a high penetration by the year 2025.

2 Those would be the avoided capital investments.

3 Q. And do you think it would be in the public
4 interest for this Commission to do something that would
5 prevent the ability of APS to save its ratepayers
6 \$300 million?

7 A. Chairman Mayes, I think it would be an
8 appropriate outcome for APS to save \$300 million in
9 capital investments.

10 Q. Would you agree with me that it would be an
11 inappropriate outcome for you to not save your ratepayers
12 \$300 million by the year 2025?

13 A. I would certainly say that's correct.

14 Q. Okay. So in a sense APS agrees with the decision
15 by the Commission several years ago to establish an
16 aggressive distributed generation program with aggressive
17 targets in both the commercial and residential sectors
18 that would allow APS and other utilities to achieve high
19 reductions in infrastructure costs?

20 A. We agree that there are benefits associated with
21 that decision as outlined in the R.W. Beck study.

22 Q. Okay. There were some questions that were asked
23 with regard to some notion that we are getting -- we could
24 get more renewable energy by doing more utility-scale
25 solar energy or renewable energy and doing less

1 distributed generation. I think that was the gist of one
2 of Commissioner Pierce's questions.

3 Are you aware of the IREC study recently released
4 that shows that in this country or perhaps in the West --
5 I'll clarify that -- that \$600 million has been spent in
6 distributed generation or has been added to utility
7 systems and only \$86 million in utility-scale systems?
8 Are you aware of that?

9 A. I'm not specifically familiar with that study.

10 Q. Well, subject to check and to the veracity of
11 that, would you agree with me that it would appear that
12 it's really not utilities that are investing in solar
13 energy right now in the western part of the United States;
14 it's actually residents, citizens putting their
15 hard-earned money down and deploying solar energy
16 throughout this country?

17 A. I believe you are correct in that the customers
18 have installed significant amounts of solar energy in
19 recent years. I think there has been some challenges on
20 the utility side, and I do have to say I believe there is
21 significant amounts of solar energy in the works on the
22 utility side that has not come to fruition yet.

23 Q. Okay. But why would it make any sense at all for
24 this Commission to move -- if this Commission believes
25 that it's in the public interest to move towards renewable

1 energy and to move towards a more sustainable energy
2 future in which we can drive down the cost of energy and
3 shield customers from the costs of carbon and other
4 volatile fossil-fuel-driven electricity, why would it make
5 sense in the environment in which we know that the way
6 renewable energy is being deployed is through distributed
7 generation and customer involvement to move away from that
8 and to focus on utility-scale? Why would that be in the
9 public interest? Why would that make any sense at all
10 right now?

11 A. What I can say to that, Chairman Mayes, is that
12 we believe in both customer-sided generation sources as
13 well as utility-sided generation sources and we will need
14 both in the future.

15 Q. So you would agree with me that it wouldn't make
16 sense to move away from our strategy right now?

17 A. We believe both are important and we should have
18 them both in our portfolio.

19 Q. Which is our current strategy right now?

20 A. That's correct.

21 Q. Okay. What is the opportunity cost of not having
22 distributed generation in which customers are paying for
23 half of the energy, in other words, are paying for half of
24 the systems that are deployed and in which those systems
25 are providing energy over 20 years? What are the

1 opportunity costs associated with not having their money
2 involved in this?

3 A. Obviously customers are providing a significant
4 capital investment in renewable generation that will
5 benefit all of us in the future.

6 Q. So there are opportunity costs associated with
7 that, aren't there? There are costs associated with not
8 having customers putting their money into these projects;
9 otherwise, it would just be ratepayers?

10 A. That is true.

11 Q. Okay. Do you think that we should -- I will ask
12 a question that Commissioner Spitzer used to ask a lot
13 when we were creating the renewable energy standard.

14 Do you think this Commission should discriminate
15 against privately paid for energy distribution?

16 A. I hate to say it, but I don't understand the
17 question.

18 Q. The question is this, and this is what
19 Commissioner Spitzer always believed, which is that we
20 should be treating those who would like to participate in
21 energy generation the same way we treat utilities. So we
22 should be encouraging those who would put distributed
23 generation on their rooftops similarly to the way we treat
24 utilities.

25 Do you think we should discriminate against

1 distributed generation -- that was his point -- or should
2 we not discriminate?

3 A. We absolutely should not discriminate against
4 distributed generation.

5 Q. Okay. You have been asked a lot of questions
6 about, you know, what would seem to reflect the desire on
7 the part of one commissioner to change the way that the
8 rules are applied to APS. There was a question asked of
9 you regarding taking the next 5 percent of the DG growth
10 and applying it to, I think it was schools. And I think
11 that was a proposal that was made yesterday.

12 Does APS feel it's appropriate for it to be
13 governed by a different set of rules than all of the other
14 utilities?

15 A. No, we do not.

16 Q. Okay. So you would not be in favor of changing
17 the rules right now outside of a rate case -- or outside
18 after a rulemaking? Or put another way, aren't these
19 issues better dealt with in a rulemaking?

20 A. Certainly the structure of the rules is better
21 dealt with in a rulemaking. I believe that the Commission
22 is afforded flexibility in its own determinations in the
23 annual proceedings that come before the Commission. But
24 certainly the structure of the rules and changing the
25 structure of the rules are best applied to all utilities.

1 Q. Okay. Could you go back to -- let's go back to
2 the R.W. Beck study, and I hope I gave it to you, but on
3 page 6-16 -- or I'm sorry, 6-14 -- do you have that?

4 A. Yes, I do.

5 Q. And on 6-14 there is a chart that is entitled
6 "Build-up of Solar Distributed Energy Value." And it
7 provides -- would you agree with me that it provides a
8 range of values associated with per kilowatt hour -- cents
9 per kilowatt hour range of value associated with
10 distribution savings, transmission savings, generation
11 savings, fixed O&M savings, and fuel purchase power loss
12 savings? Would you agree?

13 A. Yes.

14 Q. And would you agree with me that that chart
15 states that distributed energy has a value or will have a
16 value in the year 2025 for fixed O&M savings alone between
17 81 cents and \$3.22 per kilowatt hourly?

18 A. Yes. I believe that is 0.81 cents to \$3.22 per
19 kilowatt hour.

20 Q. Okay. So 0.81 and 3.22?

21 A. Yes.

22 Q. Okay. And would you agree with me that that
23 chart also demonstrates that there would be a generation
24 savings of between zero and \$1.85 per kilowatt hour?

25 A. It's 1.85 cents.

1 Q. I'm sorry, cents per kilowatt hour. You are
2 right. Okay.

3 A. Yes.

4 Q. And you would agree with me that there is a
5 transmission savings of between zero and 0.51 per kilowatt
6 hour?

7 A. Yes.

8 Q. And you would agree with me that it shows there
9 was a distribution savings of zero to 0.31 cents per
10 kilowatt hour?

11 A. Yes.

12 Q. And you would agree with me that it shows there
13 is a savings associated with distributed generation for
14 fuel purchased power and loss of savings of between 7.10
15 and 8.22 cents per kilowatt hour?

16 A. Yes.

17 Q. Okay. Do you think that is significant, your
18 company -- to your company's shareholders and your
19 company's customers?

20 A. Yes, we do believe that that demonstrates a
21 significant value for distributed energy.

22 Q. Do you believe that goodwill is important for
23 both your ratepayers and your shareholders?

24 A. Absolutely.

25 Q. Do you believe that there is goodwill associated

1 with the deployment of distributed generation throughout
2 your system?

3 A. Absolutely.

4 Q. Do you think that is a value to both ratepayers
5 and shareholders?

6 A. Absolutely.

7 Q. What is the ratio of residential solar customers
8 through commercial solar customers, solar systems?

9 A. In term of numbers?

10 Q. Yes.

11 A. In terms of total numbers, the vast majority are
12 residential. I don't know the exact number.

13 Q. So that would suggest in terms of building
14 goodwill it's also important to make sure that we have
15 residential solar; correct?

16 A. Absolutely.

17 Q. The vast majority of the people who are deploying
18 solar right now are people who own homes?

19 A. That is absolutely correct.

20 Q. Is there any available transmission capacity on
21 power lines coming out of New Mexico right now?

22 A. I'm probably not best suited to answer that
23 question. My understanding it is seriously limited.

24 Q. If not tapped out?

25 A. I would agree with that statement.

1 Q. If we want to have wind energy in Arizona, we
2 pretty much are going to have to build it here right now
3 or build a very expensive power line.

4 Would you agree with me?

5 A. I would agree with you generally, Commissioner
6 Mayes, that transmission is very limited and our ability
7 to incorporate it into our portfolio is going to be
8 dependant on specifically where it is, even specifically
9 in the state where it's in.

10 CHMN. MAYES: Okay. Thank you.

11 Your Honor, thank you.

12 CALJ FARMER: I just have a few questions for
13 you.

14

15 FURTHER EXAMINATION

16

17 Q. (BY CALJ FARMER) On page 2 of your testimony, if
18 you could turn to that, on line about 10 and a half,
19 beginning with the "Under," could you read that sentence
20 into the record?

21 A. "Under the settlement agreement APS will acquire
22 by the end of 2015 new renewable resources that provide
23 1,700 gigawatt hours of renewable energy annually."

24 Q. Okay. And then on page 3, line 14?

25 A. "Under the settlement agreement the company will

1 make its best efforts to acquire new renewable energy
2 resources with annual generation or savings of 1,700
3 gigawatt hours annually by December 31, 2015."

4 Q. Okay. Can you explain to me the savings part of
5 that sentence?

6 A. Yes, Your Honor.

7 Primarily this would be relevant -- in fact,
8 entirely this will be relevant on the distributed side of
9 the equation where our customers don't necessarily have to
10 install generation technology -- generation technology
11 being, for example, a photovoltaic system -- but could
12 install rather a system that will save them energy, for
13 example, a day-lighting system. So they would actually
14 consume less energy, and that would qualify as well
15 according to the renewable energy standard and under this
16 agreement.

17 Q. And how do you quantify those savings to know
18 whether you met the 1,000 gigawatt hours?

19 A. So in our implementation plan for the renewable
20 energy standard we do have technical requirements for
21 different technologies, and they are specific to
22 technology. One of the mechanisms that we use for systems
23 such as day-lighting systems is we require an engineering
24 report that quantifies the design and gives a firm
25 estimate of the savings.

1 So it is independently verified.

2 Q. Do Demand-Side Management reductions as a result
3 of that also go towards this total?

4 A. No, they do not.

5 Q. I know you talked about the company acquiring its
6 own solar projects; is that correct? Did I understand
7 that correctly?

8 A. Yes, Your Honor. We are -- we have an
9 application before the Commission today where we are
10 requesting to own 1.5 megawatts of photovoltaic systems.
11 And we are contemplating but have not determined or
12 submitted an application for additional ownership
13 projects.

14 Q. Do you know when the self-build moratorium ends?

15 A. My understanding or my recollection is that it
16 ends in the year 2015, but renewable energy is excluded
17 from the self-build moratorium.

18 Q. Okay. So the only generation that APS can build
19 and own that does not require a waiver or approval under
20 the self-build moratorium is for renewable resources
21 generation; is that correct?

22 A. That is my understanding, Your Honor.

23 Q. And turn to page 11 of your testimony, please.

24 On the Q & A that starts on line 19, and you are
25 talking about recovery of prudently incurred program

1 expenses related to renewables, is the company asking for
2 specific costs to be approved in this proceeding or are
3 you asking for authority to include those in future
4 applications at the Commission?

5 A. The latter, Your Honor.

6 Q. Okay. So you would -- the company would bring
7 those program expenses before the Commission and ask that
8 they be included in either the RES or PSA, whichever they
9 apply to?

10 A. That's correct.

11 Q. Okay. So does APS have plans to construct any
12 generation that is not from renewable resources prior to
13 2015?

14 A. I'm probably not the best person to answer that
15 question, but not to my knowledge.

16 CALJ FARMER: Thank you. I believe RUCO -- those
17 are all my questions. I believe RUCO indicated they had a
18 few follow-up questions.

19 MR. POZEFSKY: Thank you, Your Honor. I do. I
20 will make this short.

21

22 CROSS-EXAMINATION

23

24 Q. (BY MR. POZEFSKY) Good afternoon, Ms. Lockwood.
25 Dan Pozefsky from RUCO.

1 There was some questioning earlier on the
2 residential and nonresidential DG programs, and I just
3 wanted to clarify or clear up a few points on that.

4 My understanding from your testimony is that APS
5 completed 25 percent of nonresidential requirement in
6 2008; is that correct?

7 A. I'm sorry. Would you repeat that?

8 Q. Sure. Did I understand your testimony that APS
9 filled 25 percent of its nonresidential DG requirement in
10 2008 and 40 percent of the residential requirement?

11 A. That's correct.

12 Q. Ms. Lockwood, the application that was discussed
13 yesterday and the number of reservations that have been
14 placed on the nonresidential side, do you have an
15 explanation for the uptick in that?

16 A. In a nonresidential?

17 Q. Yes, in nonresidential.

18 A. I think there is a variety of reasons that the
19 nonresidential market has taken off.

20 I think that they have been working towards that
21 objective for some time, and we are now seeing the results
22 of many years of previous investigation and exploration.

23 The nonresidential market is afforded, as we
24 heard yesterday, some different advantages that are not
25 available to the residential customer, including

1 accelerated depreciation. The nonresidential customers
2 are also able, typically, to take advantage of some
3 economies that are afforded by scale. They do much bigger
4 systems than residential customers do, and therefore can
5 drive down the cost accordingly.

6 They have also seen, I think, more directly the
7 decrease in solar system costs occurred very recently. We
8 haven't seen that show up in the residential market yet.

9 They are also pretty sophisticated, many of them,
10 with respect to their energy management, and are looking
11 to take advantage of the incentives that we provide to
12 stabilize their energy cost into the future.

13 So there are a whole host of reasons why our
14 nonresidential customers have moved forward as rapidly as
15 they have with distributed generation.

16 Q. And given all the reservations that you have for
17 2009, do you anticipate that APS will meet its
18 nonresidential requirements in 2010?

19 A. Yes, we do.

20 Q. Okay. Now, with regard to the residential, there
21 has obviously been a low -- or a decline in the amount of
22 residential interest.

23 How do you explain that?

24 A. Just to correct that statement, if I may.

25 Q. Please.

1 A. Our residential program has actually increased
2 substantially. So it is continuing to grow even in these
3 challenging times.

4 It has not, I guess, kept up with the growth in
5 nonresidential; in fact, the only way to characterize
6 nonresidential is exploded. It went from a couple
7 megawatts to many tens of megawatts overnight.

8 The residential program has been pretty steady in
9 growth and continues to expand even in these challenging
10 times. Unfortunately it has not hit at the pace that is
11 necessary for us to meet our ambitious goals and
12 requirement that is associated with the RES.

13 Q. Okay. My disconnect in the whole thing, and I
14 wanted to give you an opportunity to explain it -- I think
15 I might have gathered that maybe because of the incentives
16 that are being offered on the nonresidential side, my
17 disconnect is that if the company is committing 90 percent
18 of its resources towards the residential growth, how do
19 you explain then, I guess, the increase being not nearly
20 as great as the nonresidential growth? Is there something
21 else that I missed?

22 A. I believe that a very significant part of that is
23 the economics and the difference in the economics. For
24 the residential customer the payback is still typically
25 significantly longer than 10 years. For a nonresidential

1 customer they can get that payback in a much shorter
2 period.

3 They also typically have -- or the customers that
4 we have seen to date have greater access to a variety of
5 tools to finance the capital costs associated, the
6 up-front costs associated with installing these systems.

7 So I believe it's a combination of, one,
8 awareness, that they are pretty sophisticated in the
9 customers that we see; two, that the payback periods are
10 shorter on the nonresidential side; and then, three,
11 access to money more directly than our residential
12 customer.

13 Q. And do you think, Ms. Lockwood, that APS's
14 advertising is effective?

15 A. We do. We are proud of the fact that we have
16 increased customer awareness. We have more than doubled
17 customer awareness in the last two years. We believe that
18 our customers are hearing our messages around solar energy
19 and increasingly are participating.

20 We recognize that we can do more and we
21 continually look for ways to do that, but we are proud of
22 what we accomplished today.

23 Q. One of the executives yesterday, Ms. Lockwood,
24 not from APS but from one of the other solar utilities,
25 had mentioned when asked a question about advertising that

1 one way that it could be done better is perhaps to change
2 the perspective on the advertising. What they were
3 suggesting or he had suggested is rather than emphasize
4 the cost -- the up-front costs to the residential
5 ratepayer, to emphasize on the amount of savings that the
6 ratepayer would incur over the years.

7 How do you respond to that?

8 A. I think that is absolutely one way of speaking to
9 a customer who is considering solar.

10 I will recognize that the person that was
11 speaking, their business model is around leasing. And
12 there is a very direct correlation and message there if a
13 customer is considering leasing. And we know some
14 customers are interested in leasing; some customers are
15 not.

16 So it is absolutely an effective message. It is
17 dependant on the inclination of the individual customer as
18 to their interest in taking that route.

19 Q. Is APS doing anything different to assure
20 compliance on the residential DG side for 2010?

21 A. Yes, we are. We continue to investigate and
22 explore new programs. One that has been mentioned several
23 times that we do have significant expectations for is our
24 program that is focused on new communities. We believe
25 that is a key critical component to getting to where we

1 need to go on the residential side and one that we look to
2 facilitate greater uptake both for the remainder of this
3 year and into next year as well.

4 We continue to look for additional ways to
5 encourage residential solar and will be doing so in
6 accordance with the decision that was made yesterday as
7 well and proposing potentially some alternatives for
8 consideration later this month -- or later next month.

9 MR. POZEFSKY: Thank you, Ms. Lockwood. That is
10 all I have.

11 CALJ FARMER: Do any other parties have
12 questions?

13 Mr. Hogan.

14 MR. HOGAN: I'll be short, Your Honor.

15

16 CROSS-EXAMINATION

17

18 Q. (BY MR. HOGAN) Ms. Lockwood, you testified
19 earlier in response to questions from Commissioner Pierce
20 about the cost -- the above-market costs associated with
21 the provisions in paragraph 15 of the settlement
22 agreement.

23 Do you recall that?

24 A. I do recall that.

25 Q. And I think you attributed to paragraph 15.1

1 some -- if I remember right -- \$278 million in total?

2 A. \$218 million.

3 Q. I did not remember right. 218 million.

4 And then with respect to paragraph 15.5, the
5 school program provisions, I think you testified that the
6 above-market cost associated with that program were
7 somewhere around \$7 million to \$15 million?

8 A. That's correct.

9 Q. Now, I want to make sure the record is clear
10 about that.

11 Are you saying that that is what the cost, the
12 additional cost to APS is as a result of this provision in
13 the settlement agreement?

14 A. No, I'm not. That is the cost of the program
15 itself in isolation, but it is a component of costs that
16 would be expended regardless to meet our obligations under
17 the RES.

18 Q. I mean, APS was going to be expending costs to
19 secure 50,000 megawatt hour of nonresidential in any
20 event; correct?

21 A. That is correct.

22 Q. So in effect what this provision does is shift
23 the focus of that funding for this three-year period, at
24 least in some part, to school programs?

25 A. That is absolutely correct.

1 Q. Okay. But the cost to APS of this settlement
2 agreement, if there are costs, would be the same with or
3 without this provision basically?

4 A. I don't believe -- I believe the answer is yes,
5 but I want to make sure I'm understood as well.

6 This provision -- if we did not provide this
7 program, we would provide another program to generate that
8 same amount of energy or savings.

9 Q. And there might be some differences in the
10 above-market cost, but probably not substantial?

11 A. I believe that is correct. In fact, quite
12 frankly, we believe because we will be deploying some
13 lower-cost technologies, this may be the most
14 cost-effective way to getting to our standard.

15 Q. Such that your above-market cost might actually
16 have been higher without this provision --

17 A. That's correct.

18 Q. -- in the agreement?

19 A. Yes.

20 MR. HOGAN: Thank you.

21 CALJ FARMER: Off the record.

22 (Discussion off the record.)

23 CALJ FARMER: Let's go back on the record.

24 Mr. Hogan, did you have more questions?

25 MR. HOGAN: No. I actually was done. Thank you,

1 Your Honor.

2 CALJ FARMER: I actually do have a couple
3 questions, I think, from Commissioner Newman that would be
4 appropriate to ask you.

5

6 FURTHER EXAMINATION

7

8 Q. (BY CALJ FARMER) Has APS accounted for possible
9 rapid increase in the cost of coal and gas?

10 A. I'm not sure that I'm the appropriate person to
11 ask.

12 Q. Let me read through a little bit more and then
13 you can see.

14 A. Okay.

15 Q. What if natural cost gas increased to the high
16 natural gas prices of September 2005 post-Katrina and
17 July 2008? When does APS believe that natural gas prices
18 will be that high again?

19 A. I'm not the appropriate witness to answer that
20 question.

21 Q. All right. Then the next question would be --
22 and maybe someone from your company who is going to
23 testify later could answer this -- but depending on how
24 you would answer those questions, does APS believe that
25 the future value of renewable resources are undervalued

1 because there is no risk of future fossil-fuel cost
2 increases?

3 A. So we believe there is value in the relatively
4 fixed price of renewable resources and that we include
5 that value or we recognize that value when we establish
6 our long-term resource plan.

7 So I don't know that I could say it's
8 undervalued, but there is definitely value, and we
9 recognize that value and we incorporate that value in
10 making your plans.

11 Q. And I think the question may be going to the
12 future value of those renewable resources given the
13 unknown cost in the future of fossil fuel.

14 A. I'm sorry. Could you state that again?

15 Q. I don't know if I can.

16 Is it possible that APS's projections of the
17 value of renewable resources in the future may be
18 undervalued based upon whatever value or costs you put on
19 future fossil fuel costs?

20 A. Our projections are just that; they are
21 projections. They could be high or they could be low.

22 Q. Okay.

23 CALJ FARMER: All right. Anybody else have any
24 more questions for this witness? APS?

25 MS. GRABEL: We have some redirect. Thank you,

1 Your Honor.

2 CALJ FARMER: Okay.

3

4

REDIRECT EXAMINATION

5

6 Q. (BY MS. GRABEL) Ms. Lockwood, earlier today
7 Chairman Mayes asked you some questions related to the
8 number of homes that have been solarized under the Energy
9 Star and solar programs.

10 Have you had a chance to run those answers to
11 ground?

12 A. Yes, I have.

13 Q. And what have you learned?

14 A. To date we have 158 lots signed up for the
15 programs, and that is through two communities. The first
16 community we mentioned earlier today is the Trilogy of
17 Vistancia, a Shea community, which is our first community
18 that signed up for this program. And we have 132 lots
19 signed up under that program.

20 As of yesterday we signed up our second
21 community, Monarch Homes, with a community of 26 lots.

22 Q. Do you have any update as to the date, time, and
23 place of the school facilities workshop regarding the use
24 of ARRA funding?

25 A. Yes, I do. The workshop that we are planning for

1 the schools to discuss our energy efficiency and
2 renewables program is scheduled for October 1st at the
3 Tempe Mission Palms Hotel starting at 9:00 a.m.

4 And actually, Ms. Grabel, if I can go back. I
5 don't think I gave a complete answer on the Energy Star
6 homes.

7 I will share with you what has been signed up to
8 date, but it was requested by Commissioner Mayes --
9 Chairman Mayes to provide an estimate of what we thought
10 that program was going to do.

11 By the end of 2012 we believe that program will
12 result in 2700 lots that are solar or are solar ready and
13 note that at least 50 percent of those would have to have
14 an actual solar water heater or photovoltaic system
15 installed. Those numbers were developed in conjunction
16 with home builders -- discussion with home builders about
17 new construction forecasts as well as their desire to
18 commit to the program. We believe that they have
19 demonstrated a clear interest and intent to participate in
20 the program, and we hope that the program exceeds those
21 estimates.

22 Q. Thank you.

23 If you could look again at Section 15.1 of the
24 settlement agreement, Chairman Mayes has asked you and a
25 number of other witnesses discussing renewable provisions

1 to talk about the meaning of best efforts in this
2 provision.

3 Who determines whether or not APS has made its
4 best effort as that term is used in Section 15.1?

5 A. The Commission does.

6 Q. If you could turn for a moment to 13.2,
7 specifically Section 13.2(D) --

8 A. Yes.

9 Q. -- that section requires APS to comply with the
10 renewable energy goals set forth in Section 15 or to
11 receive a hardship waiver for not meeting them; correct?

12 A. That is correct.

13 Q. And would you agree that that section then refers
14 to each provision in Section 15, including Section 15.1?

15 A. Yes, I do.

16 Q. Earlier today Chairman Mayes asked you how
17 section 15.1 is a benefit to the customers given that the
18 goals are those that are also set forth in the APS's
19 resource plan filing.

20 Do you recall that?

21 A. I do.

22 Q. Would you agree that to carry out the path set
23 forth in the resource plan APS must be financially
24 healthy?

25 A. Absolutely.

1 Q. And would you also agree that the settlement
2 agreement provides some measure of financial certainty
3 that will allow APS to agree to be bound by that plan
4 through the year 2015?

5 A. I do.

6 Q. In Section 15.8, as Chairman Mayes earlier
7 indicated, APS reiterates and renews its support of the RES
8 rules.

9 Are the RES referred to elsewhere in the
10 agreement?

11 A. Yes, they are, I believe in Section 13 again.

12 Q. And in Section 13.2(C) specifically, that section
13 requires APS to comply with the terms of its
14 implementation plan designed to meet the RES goal; is that
15 right?

16 A. That is correct.

17 Q. Is APS bound by that provision throughout the
18 settlement term?

19 A. Yes, we are.

20 Q. And finally, Ms. Lockwood, you indicated in
21 response to a question from the Chairman that APS would
22 not object if the RES implementation plan decision was
23 coincident with the timing of the rate case decision.

24 Did you intend by that statement to suggest that
25 the rate case be delayed in any way until the

1 implementation plan is decided?

2 A. No, I did not.

3 Q. What did you intend?

4 A. My expectation is that the implementation plan
5 would be heard within a similar time frame of the rate
6 case as we currently understand it's progressing.

7 Q. One moment before I say I'm done.

8 I do have one final question.

9 Ms. Lockwood, you indicated in response to a
10 question from Judge Farmer that you believe that renewable
11 resources might be the only exception to the self-build
12 moratorium from past settlement agreements.

13 Do you recall that?

14 A. I recall saying they were an exception. I'm not
15 sure I said they were the only exception. That I do not
16 know.

17 Q. Okay. Would it refresh your recollection if I
18 informed you that there are other resources that are
19 exempted from the self-build moratorium?

20 A. Yes.

21 MS. GRABEL: Thank you.

22 CALJ FARMER: Anything further for this witness?

23 Mr. Robertson.

24

25

1 RE CROSS-EXAMINATION

2

3 Q. (BY MR. ROBERTSON) I can't resist follow-up to
4 Mr. Grabel's last question.

5 Sitting here this afternoon at this moment, do
6 you recall any of those other exceptions to the self-build
7 moratorium?

8 A. I have a vague recollection of a term exceptions,
9 as well as exceptions for I believe reliability.

10 In fact, at this point in time is it appropriate
11 to ask Ms. Grabel to read what those other exceptions are?

12 Q. I'm sorry. I missed the part of the question,
13 what you just said, Ms. Lockwood.

14 It would be appropriate to ask Ms. Grabel to do
15 what?

16 A. To read what those exceptions are. I believe she
17 has them in front of her.

18 Q. Well, no, Ms. Lockwood, this is now my recross of
19 you on the redirect.

20 I'm asking you how much you recall. She asked
21 you, had your recollection been refreshed. I'm trying to
22 establish just to what extent it was refreshed.

23 A. Mr. Robertson, I do recall having been reminded
24 that there are other exceptions. I cannot detail them for
25 you specifically, but I do recall there were other

1 exceptions.

2 Q. And that is fine. That is all I wanted to
3 establish, that your refreshed recollection was limited.

4 Thank you.

5 A. Yes.

6 CALJ FARMER: Okay. Anything further?

7 Thank you, ma'am, for your testimony today.

8 THE WITNESS: Thank you.

9 CALJ FARMER: Off the record.

10 (Discussion off the record.)

11 CALJ FARMER: Let's go back on the record and do
12 a little cleanup first before we get to our first witness
13 with some exhibits.

14 Mr. Robertson referred to what he had marked as
15 WRA-1, which is Exhibit DB-3 to WRA witness David Berry.
16 And we had an off-the-record discussion and clarified that
17 that exhibit is actually attached to WRA-2. So the record
18 will be clear.

19 And, Mr. Robertson, you weren't intending to move
20 that as an exhibit, were you, since it's already been
21 admitted with the testimony?

22 MR. ROBERTSON: That's correct, Your Honor. I
23 was not since I understood it already was in the record.

24 CALJ FARMER: Okay. Thank you.

25 We have also had marked Mayes-6, which is the

1 PG&E Next100 blog sheet.

2 Are there any objections to the admission of that
3 exhibit?

4 Hearing none, Mayes-6 is admitted.

5 (Exhibit Mayes-6 was admitted into evidence.)

6 CALJ FARMER: We also have had marked Mayes-7,
7 which is the R.W. Beck study. I know all the parties
8 haven't had a chance to look at that yet.

9 Does anyone need additional time before they
10 decide whether they want to object?

11 MR. CROCKETT: Your Honor, I don't think all the
12 parties have had a copy of that exhibit passed out to
13 them. I don't have a copy of it. I would like to -- I
14 don't have any objections to its admission, but I would
15 like to obtain a copy of it.

16 CALJ FARMER: Okay. Does anyone still want to
17 look at it before we decide whether to object?

18 MR. POZEFSKY: I don't have any objection, but I
19 would reserve the right to object if after looking at it I
20 do find something.

21 CALJ FARMER: Okay. Let's hold off on that one,
22 and we will try to get copies of that for the parties and
23 then maybe tomorrow I will ask again.

24 Okay. Is APS ready to call their next witness?

25 MR. MUMAW: Yes, we are, Your Honor. We will

1 call Mr. Jim Wontor.

2

3

JAMES M. WONTOR,

4 called as a witness herein, appearing on behalf of the
5 Applicant, having been first duly sworn by the certified
6 court reporter, was examined and testified as follows:

7

8

DIRECT EXAMINATION

9

10 Q. (BY MR. MUMAW) Mr. Wontor, would you please
11 state your name and business address for the record.

12 A. My name is James M. Wontor, and my business
13 address is 400 North 5th Street, Phoenix, Arizona.

14 Q. Mr. Wontor, by whom are you employed and in what
15 capacity?

16 A. I'm employed by Arizona Public Service Company as
17 manager of the Demand-Side Management programs.

18 Q. Could you just briefly describe your
19 responsibilities as manager of the Demand-Side Management
20 programs?

21 A. Yes. I lead the team that is responsible for
22 planning, for implementing and for reporting on all of the
23 company's demand side management programs, including
24 energy-efficiency programs.

25 Q. Mr. Wontor, I believe I placed on your podium

1 there a document which the reporter has marked as APS
2 Exhibit No. 25.

3 Could I ask you to identify that document?

4 A. That is my direct settlement testimony in this
5 case.

6 Q. And, Mr. Wontor, that was prepared by you or
7 under your direct supervision and control?

8 A. Yes, it was.

9 Q. At this point do you have any corrections or
10 changes to that testimony?

11 A. I do not.

12 Q. If I were to ask you today those same questions
13 under oath, would your answers be the same?

14 A. They would.

15 Q. Mr. Wontor, have you prepared a brief summary of
16 your settlement testimony?

17 A. Yes, I have.

18 Q. Would you proceed to give it to us?

19 A. The purpose of my testimony is to discuss the
20 features of the settlement agreement that relate to
21 Demand-Side Management or DSM.

22 In brief, the settlement agreement greatly
23 expands the scope of APS's DSM programs and provides our
24 customers with significant opportunities to reduce their
25 energy consumption and therefore to manage the amounts of

1 their monthly electricity bill.

2 As a matter of fact, by taking some simple
3 energy-saving steps in their homes and in their business
4 facilities, both residential and business customers of APS
5 will have the opportunity to save significantly more on
6 their energy bill than the amount of rate increase being
7 requested in settlement.

8 The agreement calls for both new
9 energy-efficiency program and enhancements to existing
10 programs that will benefit all APS customers. Customers
11 who choose to take actions to make their buildings and
12 their energy-using appliances and equipment more energy
13 efficient. Specifically the enhanced programs will
14 benefit existing residential homes, residential new
15 construction homes, limited-income customers, existing
16 businesses of all sizes and types, small businesses,
17 municipal customers, and school facilities, as well as
18 large commercial and industrial customers. All of these
19 programs -- all of these customer groups will benefit from
20 the expansion of our existing DSM programs and the
21 creation of some very specific and targeted new programs
22 that I describe in more detail in my testimony.

23 On July 15th, 2009 APS filed an energy-efficiency
24 implementation plan for 2010 with this Commission.
25 Contained in this plan is a road map for how APS intends

1 to achieve the aggressive energy savings targets of
2 320,000 megawatt hours set for 2010, which, by the way, is
3 enough energy to power over 22,000 average residential
4 homes for one year.

5 Implementation of the 2010 energy-efficiency plan
6 once approved will allow APS to bring significant
7 additional benefits to our customers as early as next
8 year. But the energy-efficiency savings goals created in
9 the settlement will continue beyond 2010 and will continue
10 to 2012. The cumulative annual savings expected to be
11 achieved from 2010 to 2012 is 1.2 million megawatt hours,
12 and that will save enough energy to over 85,000 households
13 for one year, roughly the equivalent of saving enough
14 energy to serve all the households in a he city the size
15 of Glendale.

16 Among the customer benefits just from the
17 energy-efficiency actions expected to be taken in 2010
18 alone are the following: Number one, customers who
19 participate will save on their energy bills over
20 \$300 million over the life of the measures that they
21 install just in 2010 alone; annual energy savings of
22 320,000 megawatt hours delivered at an estimated cost of
23 1.4 cents per lifetime kilowatt hour saved; and third,
24 over 1.5 million tons of greenhouse gas emission, CO2
25 reduction over the life of the measures installed during

1 2010.

2 Because of these substantial benefits provided to
3 all APS customers and because of the important role of
4 expanding energy efficiency in creating a sustainable
5 energy future for Arizona, APS and other signatories to
6 this agreement believe that the settlement agreement is in
7 the public interest and therefore should be approved by
8 this Commission.

9 That concludes my summary of my testimony.

10 Q. Thank you, Mr. Wontor.

11 MR. MUMAW: Mr. Wontor is available for
12 cross-examination.

13 Let me move for the admission of Exhibit APS-25,
14 before I forget.

15 CALJ FARMER: APS-25 was prefiled, and no
16 objections have been received. It is admitted.

17 (Exhibit APS-25 was admitted into evidence.)

18 MR. MUMAW: Thank you. The witness is still
19 available for cross-examination.

20 CALJ FARMER: Thank you.

21 Do any parties in support of the settlement
22 agreement have questions for the witness?

23 Mr. Hogan.

24

25

1 CROSS-EXAMINATION

2

3 Q. (BY MR. HOGAN) Good afternoon, Mr. Wontor.

4 A. Good afternoon.

5 Q. You reference the energy-efficiency
6 implementation plan that was filed by the company on APS
7 July 15th in your summary; correct?

8 A. Correct.

9 Q. Let me -- do you have the settlement agreement in
10 front of you?

11 A. I do.

12 Q. Let me have you turn to page 30 and take a look
13 at paragraph 14.10 for a moment.

14 Do you have that in front of you?

15 A. I do.

16 Q. That is the provision of the settlement agreement
17 which calls for the filing of the energy-efficiency
18 implementation plan on or before July 15th; correct?

19 A. Correct.

20 Q. And you will see there that in the same provision
21 it calls for Staff to review the plan and provide its
22 recommendations to the Commission in sufficient time so
23 that the Commission may consider the matter at its regular
24 November open meeting.

25 Can you tell us what the status of the review of

1 the plan that was filed by APS on July 15th is currently?

2 A. Mr. Hogan, what I can tell you is that we filed
3 the implementation plan on July 15th. It is in the hands
4 of Commission Staff for review. We have not had
5 significant or any dialogue with Staff about that plan
6 yet, but we certainly anticipate that we will. And we
7 will be on track for the November open meeting review.

8 Q. So you're confident as you are sitting here today
9 that the schedule set forth in paragraph 14.10 is going to
10 be met?

11 A. I personally know of no barriers to that at this
12 point.

13 Q. And you haven't -- no barriers have been
14 presented to the company by Staff or any other party as
15 far as processing the implementation plan for approval?

16 A. None that I'm aware of.

17 Q. And why is it important -- what is the
18 significance of getting this implementation plan approved
19 at the November open meeting?

20 A. Mr. Hogan, as I mentioned, the goal for 2010 is
21 320,000 megawatt hours. For APS to achieve that level of
22 savings requires us to have new programs -- new program
23 elements that are proposed in the implementation plan.

24 So we feel it's essential that that plan be
25 approved in order to allow us to meet the targets set

1 forth in the settlement.

2 Q. And to provide your customers with the benefits
3 of these new program as quickly as possible?

4 A. Certainly.

5 MR. HOGAN: Okay. That is all I have. Thank
6 you.

7 CALJ FARMER: Okay. Any other party have any
8 questions for this witness?

9 All right. I think Commissioner Mayes might. If
10 she is listening, she may want to come to the hearing room
11 and ask some questions. But I will check and see. I
12 might have -- I believe Ms. Lockwood deferred -- or
13 referred a question to Mr. Wontor. Let me check that just
14 a moment.

15 MR. MUMAW: Your Honor, I think that was
16 questions concerning our filing of June 29th of this year
17 that dealt with the new residential homes program that has
18 a similar element of that, if that helps you find it up
19 there.

20 CALJ FARMER: Okay. I found it.

21

22 EXAMINATION

23

24 Q. (BY CALJ FARMER) It's paragraph 20.6 of the
25 settlement agreement, and this paragraph requires APS to

1 study the impact of its super peak and critical peak
2 pricing on the energy mix, air emission, and energy used
3 by program participants.

4 Is there any reason why the study should not
5 evaluate APS's entire demand response program on the
6 foregoing issues, including its new time of use rates for
7 schools approved in paragraph 21.2?

8 A. Your Honor, I'm not sure I'm the appropriate
9 witness for that. I hope Ms. Lockwood did not punt that
10 to me because I'm not sure that I'm the appropriate
11 witness.

12 I know of no particular reason, but she would be
13 more qualified to speak to the review of the demand
14 response programs than I would.

15 MR. MUMAW: Your Honor, with all due respect, I
16 think she punted that one to our favorite receiver,
17 Mr. Rumolo.

18 Q. (BY CALJ FARMER) Okay. So you don't know why
19 some demand-response program were singled out for study
20 while others were left out?

21 A. I do not.

22 Q. Okay. Mr. Rumolo better.

23 Okay. On page 1 of your testimony you say that
24 you currently manage the Demand-Side Programs for APS and
25 you have held this position since September of 2000;

1 correct?

2 A. 2007.

3 Q. 2007. Was there someone who had that position
4 prior to you?

5 A. Yes, there was.

6 Q. I believe one of the provisions of the settlement
7 agreement is that the program costs and incentives related
8 to the DSM programs are going to be recovered through the
9 DSM adjustment charge; is that correct?

10 A. That is correct. There is an amount of program
11 costs that are collected through base rates, but in
12 addition to that 10 million collected in base rates, the
13 balance of the costs are collected through the DSM
14 adjustor charge.

15 Q. So there is something like \$10 million in base
16 rates for DSM?

17 A. Correct.

18 Q. Okay. And has anybody put into the record what
19 the program costs associated with the settlement agreement
20 would be that are going to be going through the DSM
21 adjustor?

22 A. I don't think that has been put into the record,
23 but I certainly can do so.

24 Q. Please.

25 A. The amount of money that we have estimated that

1 it will cost to implement programs to achieve the target
2 in the settlement agreement in 2010 are contained in the
3 implementation plan that we filed on July 15th.

4 So reading from Table 9 of that filing, the
5 program cost for DSM for energy-efficiency programs for
6 2010 are approximately \$49.9 million. Because the DSM
7 adjustment charge becomes a concurrent recovery of costs
8 in 2010, we also would need to recover the 2009 costs on a
9 backward-looking basis, so those are approximately
10 25.5 million.

11 As I mentioned, of that, \$10 million is recovered
12 in base rates in each of those two years, 2009 and 2010.
13 And then with the addition of some demand-response program
14 costs, that brings the total amount to be recovered
15 through the DSM adjustment charge of
16 \$58.7 million.

17 Q. And has someone calculated what the per-customer
18 dollar amount of that is?

19 MR. MUMAW: I will tell you Mr. Rumolo will
20 address that issue. The answer is yes. I don't know if
21 the witness knows, but the answer is yes; someone has done
22 it and it's Mr. Rumolo.

23 CALJ FARMER: Okay. Thank you.

24 THE WITNESS: The witness knows, and I could
25 share it if you want me to, or I can defer it to

1 Mr. Rumolo.

2 MR. MUMAW: Your Honor, you can decide. You can
3 ask Mr. Wontor since he apparently has the same document.

4 Q. (BY CALJ FARMER) Let's go ahead and put it on
5 the record here, and Mr. Rumolo can also talk about it.

6 A. The increase in the amounts of the DSM adjustment
7 charge as a result of the number that I just spoke about
8 for recovery in 2010, the increase for an average
9 residential customer would be \$1.71 per month.

10 Q. And did you say that that collecting both 2009
11 and estimate 2010 costs?

12 A. That's correct.

13 Q. Okay. So in 2011 would it decrease after you
14 collected the double year?

15 A. In 2011 we would be collected our projected
16 expense for 2011. So depending on what those were, it
17 could decrease or it could stay about the same or increase
18 depending on what those costs are to implement new
19 programs to achieve a higher saving target in 2011.

20 Q. Okay. Well, I have some notes on page 7 and 8 of
21 your testimony, if you could turn to that, but I'm not
22 sure I understand what I was thinking when I wrote them.

23 So could you explain to me the performance
24 incentive as a percentage of net benefits concept?

25 A. Your Honor, I certainly can try.

1 The concept of the performance incentive is
2 basically to incent APS to implement programs that provide
3 the maximum net benefits to our customers. So most of
4 those net benefits are returned to the customers, are
5 realized by the customers. The performance incentive is a
6 concept that rewards APS for maximizing these net benefits
7 and allows APS to retain a small portion of those net
8 benefits.

9 When I say "net benefits," what I really mean
10 there is just simply the benefit, the avoided cost of
11 achieving the savings so that we do not need to purchase
12 or build other resources to meet that demand. So there is
13 a benefit to that and how much that exceeds the cost of
14 implementing those program, the customer cost and utility
15 cost, is considered a net benefit.

16 So the performance incentive is just a mechanism
17 that is widely recognized across the country that provides
18 utilities the incentive to maximize the benefits to the
19 customer.

20 Q. To date has APS had DSM programs that you believe
21 have been effective?

22 A. Yes, absolutely. We believe our programs have
23 been very effective to date.

24 Q. And how much savings have you achieved to date?

25 A. Bear with me a moment while I locate that number.

1 Since 2009 up through 2008, which is our last
2 full year of achievement, we achieved approximately
3 565,000 megawatt hours of savings from the energy
4 efficiency programs. That does not count what we expect
5 to achieve in 2009 before the savings in the settlement
6 agreement takes hold in 2010.

7 Q. So under the settlement agreement there are goals
8 that are set and then there are incentives that the
9 company can realize, but there is no penalties if you
10 don't meet goals.

11 Is that the way it's set up?

12 A. That's correct. There are goals that are set up,
13 very aggressive goals. There is a performance incentive
14 that encourages us to maximize the savings and net
15 benefits to our customers. And there are no penalties for
16 not achieving those. But I can tell you, just as the
17 discussion on the renewable targets, we take the targets
18 in the settlement agreement very seriously and are
19 committed to achieving those.

20 Q. I suppose if Commissioner Mayes were here, I am
21 sure she would ask you if you feel you are required to
22 meet those.

23 A. And if she were here, I would answer that yes, I
24 feel very much that we are required to meet those.

25 Now, I would also add that our ability to meet

1 those is subject to customers participating in our
2 programs. In order to realize those savings, customers
3 need to invest in energy efficiency.

4 So in some cases that means buying a CFL
5 lightbulb for a dollar, which is not a large investment,
6 but produces a significant savings. But in other cases
7 that means spending more money than that for a
8 high-efficiency air conditioner or a business customer to
9 realize their entire facility.

10 So it does require in some cases a significant
11 investment by the customer.

12 So our ability to meet those targets is really
13 subject to our customers being willing to participate in
14 those programs and spend the money on energy efficiency.

15 Q. And can you just briefly describe how you intend
16 to make sure those customers do participate?

17 A. Certainly. We intend to continue the existing
18 successful programs that we have. We intend to introduce
19 some new programs, and certainly with both existing and
20 new programs, a share of the cost is spent on marketing of
21 the programs to make sure that we raise the awareness of
22 our customers so they are aware that these programs exist,
23 they are aware of the savings that they can realize from
24 them.

25 So it's through the use of the marketing dollars

1 in our budget that we will make sure that the customers
2 are aware of the programs.

3 CALJ FARMER: Okay. I don't think I have any
4 further questions for you.

5 Do the parties have any more questions?

6 Mr. Hogan.

7 MR. HOGAN: Thank you, Your Honor. Just a
8 couple.

9

10 FURTHER CROSS-EXAMINATION

11

12 Q. (BY MR. HOGAN) Mr. Wontor, the Judge asked you
13 about recovery of costs, energy-efficiency costs through
14 the DSM adjustment mechanism, and you talked about the
15 recovery of 2009 costs in 2010 and provided a figure of, I
16 think, \$1.71 per average residential customer; is that
17 right?

18 A. That's right.

19 Q. Now, in the energy-efficiency implementation plan
20 that we discussed earlier, you have proposed methods -- a
21 couple of different methods of recovery of those costs;
22 correct?

23 A. Correct.

24 Q. And which one represents the \$1.71 figure that
25 you provided the Judge?

1 A. The \$1.71 represents the full recovery of 2009
2 and 2010 costs in 2010.

3 Q. In 2010?

4 A. Correct.

5 Q. And there is an alternative method of recovery
6 proposed as well; correct?

7 A. Correct. The alternative proposed is to take
8 2009 costs and recover them over a three-year period. If
9 that alternative was chosen, then the impact would be
10 \$1.27 on the average customer bill.

11 MR. HOGAN: Okay. Thank you.

12 MR. GRANT: Judge.

13 CALJ FARMER: Yes, Mr. Grant.

14

15 CROSS-EXAMINATION

16

17 Q. (BY MR. GRANT) Mr. Wontor, good afternoon.

18 A. Good afternoon, Mr. Grant.

19 Q. I just wanted to follow up real quickly on the --
20 you just talked with counsel and also the judge about
21 recovering program cost.

22 Do you recall that?

23 A. Correct.

24 Q. APS will have unrecovered fixed costs associated
25 with the energy-efficiency goals, will it not?

1 A. We will.

2 Q. Could you define what unrecovered fixed costs
3 are?

4 A. Certainly I can try. I think maybe the best way
5 to define it is through an example.

6 So if APS was to sell one unit of electricity, we
7 would charge a customer -- just to approximate a number --
8 we might charge a residential customer 10 cents for that
9 one unit of electricity.

10 Within that 10 cents is approximately 5 cents of
11 what it costs for us to produce the electricity, to
12 generate electricity. Most of the other 5 cents are what
13 we would call fixed costs that are recovered in that
14 10-cent charge. And those fixed costs would be for things
15 like substations, feeders, transformers, distribution
16 lines.

17 So if we were to not sell that one unit of
18 electricity, then certainly the first 5 cents we wouldn't
19 incur; we wouldn't have to produce the electricity. But
20 the second 5 cents -- we would still have substations,
21 transformers, feeders, and distribution lines that we
22 would need to recover those costs. So that second 5 cents
23 would go unrecovered if we did not sell that unit of
24 electricity.

25 That is what we refer to as unrecovered fixed

1 costs.

2 Q. So in other words, by avoiding or meeting the
3 energy-efficiency goal and avoiding the sale of that
4 one unit, there are certain fixed costs that as a result
5 of avoiding or being energy efficient or encouraging the
6 customer to be energy efficient, there are certain costs,
7 though, associated with that that do not go away for the
8 company?

9 A. That's correct.

10 Q. Do you have the settlement agreement handy?

11 A. I do.

12 Q. Could you turn to page 29, Section 14.8?

13 A. I'm there.

14 Q. Are you there?

15 A. I'm there.

16 Q. Could you read into the record the first sentence
17 of Section 14.8?

18 A. Sure. Section 14.8 says, "APS shall not request
19 recovery of unrecovered fixed costs as a component of DSM
20 program costs until its next general rate case. APS
21 agrees to an explicit exclusion of uncovered fixed costs
22 from the definition of program cost. This provision will
23 not preclude APS from seeking such recovery in other
24 proceedings."

25 Q. So is it correct, Mr. Wontor, that, as we have

1 discussed, APS will have unrecovered fixed costs
2 associated with meeting the energy-efficiency goals, which
3 are stated in part of the settlement agreement at 14.1?

4 A. Correct.

5 Q. But Section 14.8 specifically precludes the
6 company from any recovery of those unrecovered fixed
7 costs?

8 A. That's correct.

9 MR. GRANT: That is all I have.

10 CALJ FARMER: Just a couple more questions for
11 you.

12

13 FURTHER EXAMINATION

14

15 Q. (BY CALJ FARMER) Is there a limit or cap on the
16 amount of program costs that can be recovered?

17 A. Your Honor, the 2010 implementation plan, again
18 we estimate the cost to achieve the energy savings target.
19 We estimated those costs to be \$49.9 million.

20 Your question is, is there a limit? That is what
21 we feel is our best estimate of what it will take to
22 achieve that target.

23 Currently, our programs are based on a spending
24 target each year. This settlement changes that and puts
25 the focus on achieving the energy savings with an

1 associated budget -- or with a budget associated with
2 achieving that energy savings target.

3 So currently if we were to be authorized, which
4 we are, to spend 25.5 million per year, that is what we
5 would spend. And if we thought that we could spend more
6 or we were going to spend more, then I believe we would
7 have to come back in front of the Commission to request
8 additional moneys to spend.

9 But in terms of 2010, our best estimate of what
10 it will take to achieve the savings target in the
11 settlement is \$49.9 million.

12 Q. Well, I notice on page 8 on Table A --

13 A. Page 8 of?

14 Q. Your testimony. I'm sorry.

15 -- that the third column says "Performance
16 Incentive Capped at Percentage of Program Cost."

17 So it looks like your performance incentive is
18 directly related to the amount of your program costs;
19 therefore, doesn't that encourage you to have high program
20 costs?

21 A. Your Honor, the performance incentive is
22 primarily calculated on a percent of net benefits. Then
23 secondarily it's capped at a percent of the program cost
24 to provide some certainty for how much that might be.

25 So to the extent that we had higher program costs

1 than were warranted, then we would have much lower net
2 benefits. That would reduce the net benefits to customers
3 if we had higher program costs. And therefore since the
4 performance incentive, that first calculation is based on
5 that benefit, that would limit the amount of performance
6 incentive we would be able to get.

7 So kind of a long, convoluted answer, but
8 basically the governor over the performance incentive is
9 first set as a percent of net benefits.

10 Q. So are you saying that net benefits are higher
11 the lower the program costs or lower?

12 A. Again, net benefits are the benefit of saving the
13 energy less the costs of producing that savings. So to
14 extent that the costs are lower, then the net benefits are
15 higher, correct.

16 CALJ FARMER: Okay. I think that is enough for
17 today.

18 Anyone else have questions?

19 Okay, Mr. Robertson.

20 MR. ROBERTSON: Just one or two.

21

22 CROSS-EXAMINATION

23

24 Q. (BY MR. ROBERTSON) These are to round out the
25 picture that you have been painting.

1 When you calculate the program costs, for
2 example, in connection with calculating what the costs per
3 average residential customer would be for 2009 and 2010,
4 do you also at the same time or collateral to that
5 calculate the avoided costs that result from implementing
6 the energy-efficiency programs?

7 A. Mr. Robertson, yes, that would be a part of the
8 net benefits calculation, would be the avoided cost.

9 Q. Okay. And I'm assuming that the answer would be
10 that those avoided costs substantially exceed your cost of
11 implementing the energy-efficiency programs.

12 Would that be correct?

13 A. That's correct.

14 Q. Okay. So there clearly is a net benefit to the
15 customers as well as the company; is that correct?

16 A. Clearly there is. The net benefits, as I have
17 defined them, I believe are about \$102 million in the 2010
18 implementation plan.

19 Q. Okay. Then that would mean what would be the
20 avoided cost in the aggregate?

21 A. I'm sorry?

22 Q. You gave a figure of net benefit.

23 What would be the avoided cost in the aggregate,
24 if you have that information? I don't want to prolong
25 your time on the stand, but I was just curious. It seemed

1 like a logical part of the picture that you have been
2 describing.

3 A. I'm not sure I have that with me, and subject to
4 check I believe it's somewhere in the neighborhood of
5 \$165 million of the net benefit -- or the gross benefit, I
6 guess, not the net benefit.

7 MR. ROBERTSON: Okay. Very good. Thank you.
8 Thank you, Your Honor.

9 CALJ FARMER: Anything further for this witness?

10 MR. MUMAW: We do have some redirect. I know the
11 witness will hate me for this.

12

13 REDIRECT EXAMINATION

14

15 Q. (BY MR. MUMAW) Let me just start backwards on
16 the question Mr. Robertson just asked you.

17 The avoided cost you indicated were significantly
18 higher than program costs; correct?

19 A. Correct.

20 Q. But is it fair to say that the bulk of those
21 avoided costs, the 5 cents in your example, go to customer
22 through the PSA?

23 A. Correct.

24 Q. And the 5 cents that you referred to in response
25 to Mr. Grant as unrecovered fixed costs are essentially

1 trapped at the company; is that correct?

2 A. Correct.

3 Q. Do you have an estimate for the total amount of
4 unrecovered fixed costs as you have defined them through
5 the 2012 period?

6 A. I do. It's kind of a tough one to walk through
7 the number on. But basically in a given year for all of
8 the energy efficiency implemented in that year, the
9 unrecovered fixed costs are somewhere in the neighborhood
10 of 15- to \$16 million in that one year for measures
11 installed in that year.

12 As we look at the settlement period for DSM of
13 three years, then those accumulate. So the energy that
14 was not sold in 2010 is still saved in 2011 and 2012, and
15 in addition there is additional measures installed in 2011
16 and 2012. So if one were to accumulate 15- or \$16 million
17 across those three years, the approximate estimate of
18 unrecovered fixed costs would be in the neighborhood of
19 \$100 million.

20 Q. Thank you, Mr. Wontor.

21 Just so there is no confusion on this point,
22 although the company has asked the Commission in the DSM
23 energy-efficiency implementation plan to put an estimate
24 out there for \$49.9 million, the company doesn't view that
25 as any sort of limit on the cost that it should expend to

1 meet the target; correct?

2 A. Correct.

3 Q. And as a practical matter, however, Mr. Wontor,
4 if it looked like we were going to go way over that
5 amount, would you expect the company to come back to the
6 Commission and seek some further guidance as to whether
7 they should -- whether it's either the money or the goal
8 that should bend?

9 A. I would.

10 Q. Okay. And conversely, if you achieved the 2010
11 energy-efficiency target and had not expended the
12 \$49.9 million, would it be your intent that the company
13 would proceed to attempt to exceed the target for 2010?

14 A. Yes, it would be our intent to do that.

15 Q. Okay. You had some discussion of the performance
16 incentive mechanisms, I believe, with the administrative
17 law judge.

18 Do you recall that?

19 A. I do.

20 Q. And I know some of the percentages have changed
21 in the settlement, but does the current energy-efficiency
22 program or DSM program structured for APS include a
23 performance incentive?

24 A. Yes, it does.

25 Q. And is it true it's also based on the percent of

1 net benefits?

2 A. Correct.

3 Q. And it also has a cap based on program costs?

4 A. It does.

5 Q. So although some of the details have changed or
6 have been enhanced in this, it's the same basic structure
7 as currently in place?

8 A. It is.

9 Q. Is it also true that under the terms of the
10 settlement that if you don't achieve at least 85 percent
11 of the target, that you get zero incentive?

12 A. That too is correct.

13 Q. Do you have the settlement with you?

14 A. I do.

15 Q. Look to Section 13.2 or paragraph 13.2.

16 Do you have that?

17 A. I do.

18 Q. Is it fair to say that in addition to forfeiting
19 incentive achievement of these energy-efficiency goals,
20 target -- I don't want to quibble with the terminology --
21 but achievement of this is one of the performance measures
22 that is measured by that section?

23 A. Yes, it is. It's 13.2(B).

24 MR. MUMAW: I have nothing further. Thank you.

25 CALJ FARMER: Anything further?

1 Thank you, sir, for your testimony today.

2 Okay. Just to recap our plans for tomorrow, we
3 will begin with Staff's witness Smith, and then I guess
4 the question is, should we take Staff witness Abinah or
5 should we go to Mr. Rumolo?

6 Do the parties have any --

7 MR. MUMAW: Your Honor, I certainly -- as much as
8 I know Mr. Rumolo is chomping at the bit to get on the
9 stand, I personally would like to accommodate Staff's
10 scheduling concerns and allow them to schedule both of
11 their, my term, primary witnesses tomorrow.

12 CALJ FARMER: Any other comments on that?

13 All right. So let's go ahead and start with
14 Mr. Smith, then Mr. Abinah after that. Okay?

15 Anything else we need to get on the record now?

16 MR. MUMAW: Your Honor, although I consider it
17 extremely unlikely that we would be able to complete both
18 the Staff witnesses and Mr. Rumolo tomorrow given the
19 breadth that Mr. Rumolo's testimony has now assumed, I
20 think I did contact Mr. Grant to see whether Mr. Yaquinto
21 would at least be available tomorrow. I believe he
22 indicated that he would, and I thought the parties should
23 be aware of at least that possibility.

24 CALJ FARMER: Okay. Are you talking about
25 putting him on after Mr. Rumolo?

1 MR. MUMAW: I'm not saying that we put
2 Mr. Yaquinto on at like 4:00 o'clock tomorrow, but, you
3 know, like in the movie "Cool Hand Luke," if we run out of
4 road by 2:00, I would like to continue to have the people
5 working rather than send them back to the barracks.

6 CALJ FARMER: Okay. Okay.

7 MR. MUMAW: And I would like to get -- with the
8 extra day, Your Honor -- frankly, with the extra day, I
9 think we have a shot, but, you know, not if we miss
10 opportunities to put witnesses on and off. So that is
11 why, as a precaution out of optimism, I contacted
12 Mr. Grant.

13 MR. GRANT: Actually, Judge, in the words of
14 "Cool Hand Luke," we had a failure to communicate.

15 No, Mr. Mumaw is correct. What I contemplated is
16 because Mr. Yaquinto, since he is local, that at the lunch
17 break I can advise him if it appears likely that he needs
18 to show up or not. But he is available tomorrow if we
19 have the time and can he can get on.

20 CALJ FARMER: All right. I will see you tomorrow
21 morning at 9:00 o'clock. And next week I have scheduled
22 the hearings to start at 9:30. I'm just saying that. I'm
23 trying to get some other work done, and it's very
24 difficult otherwise.

25 (The hearing recessed at 5:18 p.m.)

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1 STATE OF ARIZONA)
2) ss.
3 COUNTY OF MARICOPA)
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